

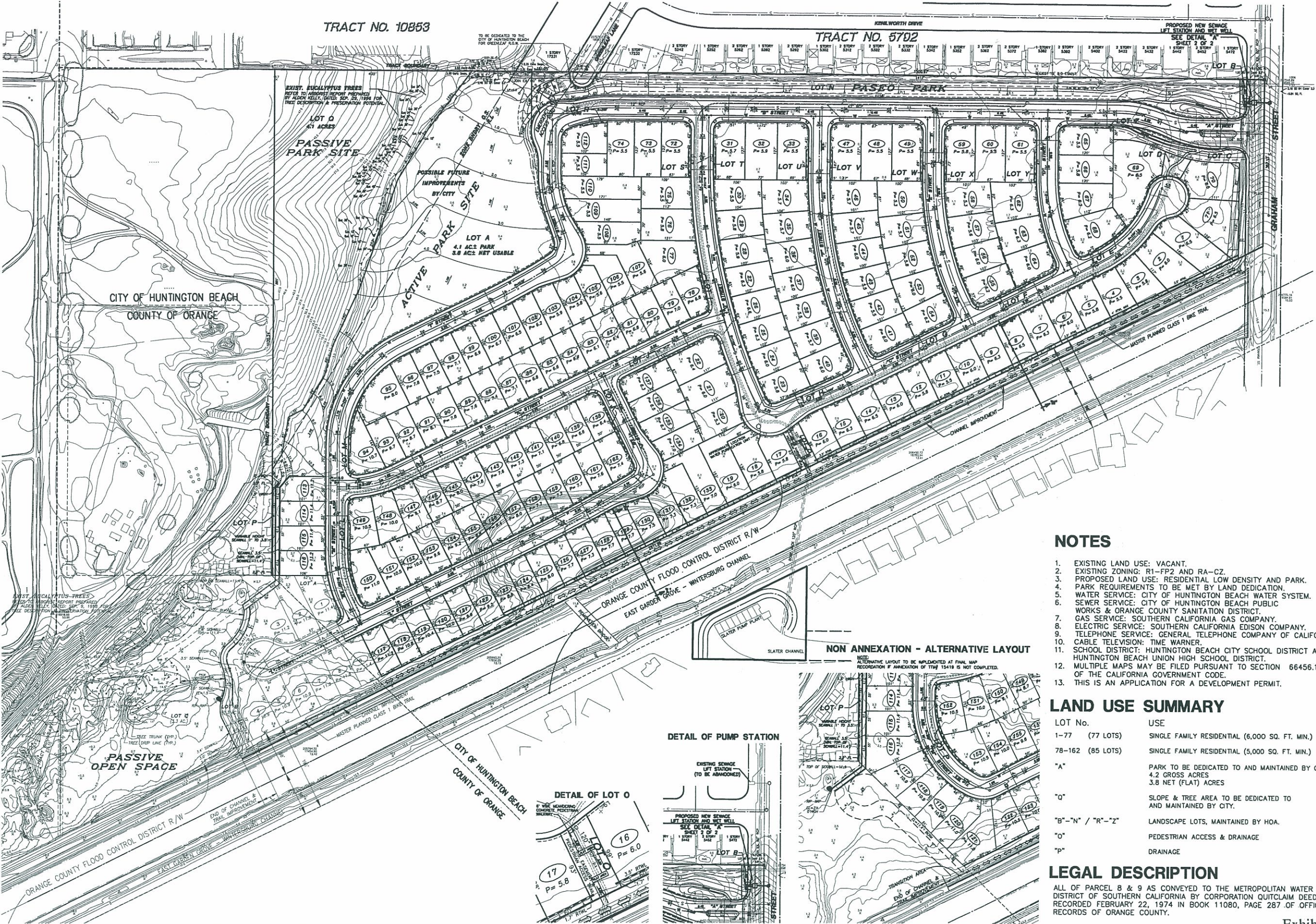
## **Public Services and Utilities**

This alternative would result in impacts to public services and utilities that would be less than the original project. Because this alternative would result in the development of ~~37~~ 35 fewer units, the demands on existing public services and utilities (i.e., schools, sewer and water, fire protection, police protection, library, gas, electricity, hospitals, transit, etc.) would be less. Although the impacts would be less with this alternative, Mitigation Measures 1 through 18 under Public Services and Utilities identified in the Draft EIR would still apply to ensure impacts are reduced to a level less than significant.

## **Status of Alternative**

This alternative is technically feasible. It meets the project applicant's objectives. This alternative reduces impacts of the original project in that it completely avoids the eucalyptus trees, the EPA delineated pocket wetland, and the pickleweed patch located on the County portion of the site, and provides a 464-foot buffer from the closest residential use to the 0.13 acre on-site ESHA. Furthermore, it provides 6 additional acres of open space. This project slightly increases the overall site base flood elevation, compared to the original project. This results in an insignificant difference in the amount of import and the duration of grading operation. ~~As noted above, if the BFEs assumed for this alternative are correct, i~~Impacts related to flooding under this alternative could potentially be greater than under the condition analyzed in the Draft EIR in the absence of the increased pad elevations. However, the proposed design of this alternative, including the higher pad elevations, storm drain improvements, addition of greater pumping capacity to the Slater Pump Station, and improvements to the East Garden Grove Wintersburg Flood Control Channel, will mitigate the impacts to a level of less than significant.

Thus, it reduces many impacts compared to the original project, and does not create significant impacts related to the increase in base flood elevation. Therefore, it is environmentally superior to the original project and remains under consideration if approval of Shea Home's CLOMR application to FEMA is granted.



NOTES

- 1. EXISTING LAND USE: VACANT.
- 2. EXISTING ZONING: R1-FP2 AND RA-CZ.
- 3. PROPOSED LAND USE: RESIDENTIAL LOW DENSITY AND PARK.
- 4. PARK REQUIREMENTS TO BE MET BY LAND DEDICATION.
- 5. WATER SERVICE: CITY OF HUNTINGTON BEACH WATER SYSTEM.
- 6. SEWER SERVICE: CITY OF HUNTINGTON BEACH PUBLIC WORKS & ORANGE COUNTY SANITATION DISTRICT.
- 7. GAS SERVICE: SOUTHERN CALIFORNIA GAS COMPANY.
- 8. ELECTRIC SERVICE: SOUTHERN CALIFORNIA EDISON COMPANY.
- 9. TELEPHONE SERVICE: GENERAL TELEPHONE COMPANY OF CALIFORNIA.
- 10. CABLE TELEVISION: TIME WARNER.
- 11. SCHOOL DISTRICT: HUNTINGTON BEACH CITY SCHOOL DISTRICT AND HUNTINGTON BEACH UNION HIGH SCHOOL DISTRICT.
- 12. MULTIPLE MAPS MAY BE FILED PURSUANT TO SECTION 66456.1 OF THE CALIFORNIA GOVERNMENT CODE.
- 13. THIS IS AN APPLICATION FOR A DEVELOPMENT PERMIT.

LAND USE SUMMARY

LOT No.	USE
1-77 (77 LOTS)	SINGLE FAMILY RESIDENTIAL (6,000 SQ. FT. MIN.)
78-162 (85 LOTS)	SINGLE FAMILY RESIDENTIAL (5,000 SQ. FT. MIN.)
"A"	PARK TO BE DEDICATED TO AND MAINTAINED BY CITY. 4.2 GROSS ACRES 3.8 NET (FLAT) ACRES
"O"	SLOPE & TREE AREA TO BE DEDICATED TO AND MAINTAINED BY CITY.
"B"- "N" / "R"- "Z"	LANDSCAPE LOTS, MAINTAINED BY HOA.
"O"	PEDESTRIAN ACCESS & DRAINAGE
"P"	DRAINAGE

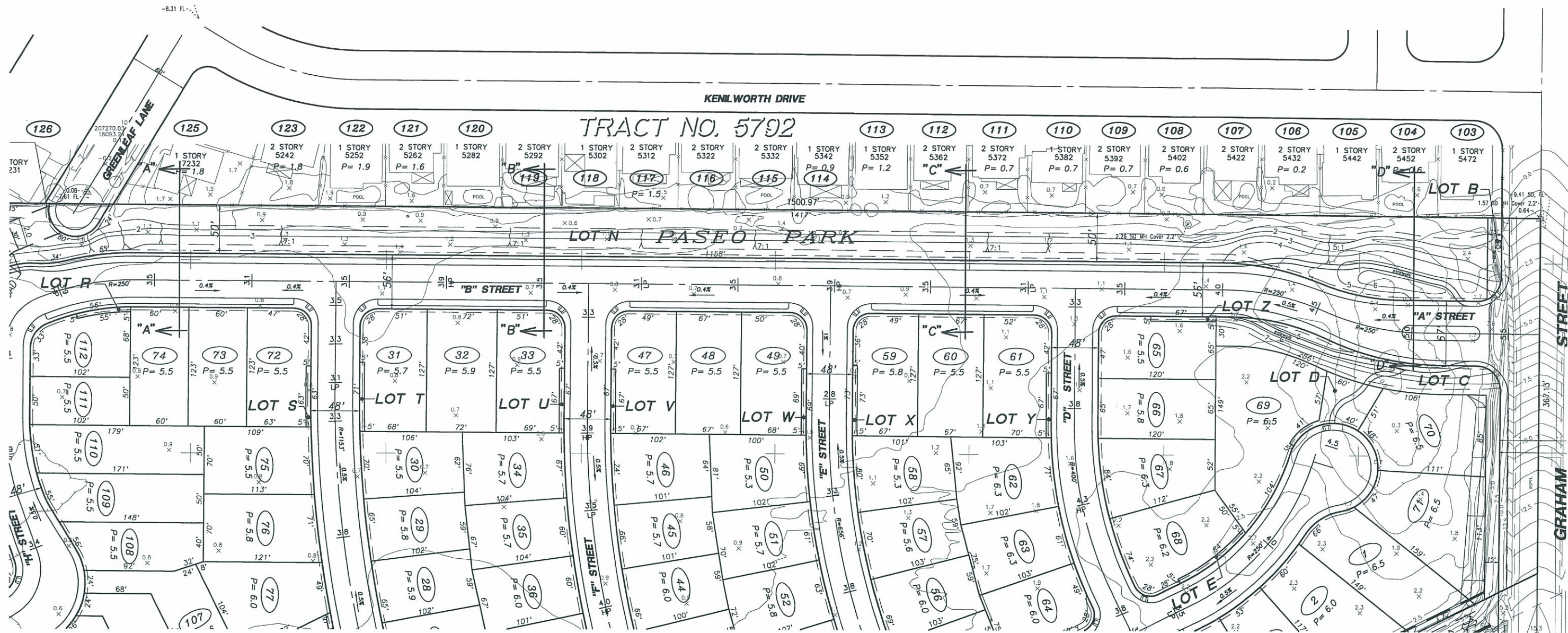
LEGAL DESCRIPTION

ALL OF PARCEL 8 & 9 AS CONVEYED TO THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA BY CORPORATION QUITCLAIM DEED RECORDED FEBRUARY 22, 1974 IN BOOK 11080, PAGE 287 OF OFFICIAL RECORDS OF ORANGE COUNTY.

Scale: (approx.) 1"=215'

EDAW, Inc. 6/11/01

Source: Hunsaker & Associates Irvine, Inc.

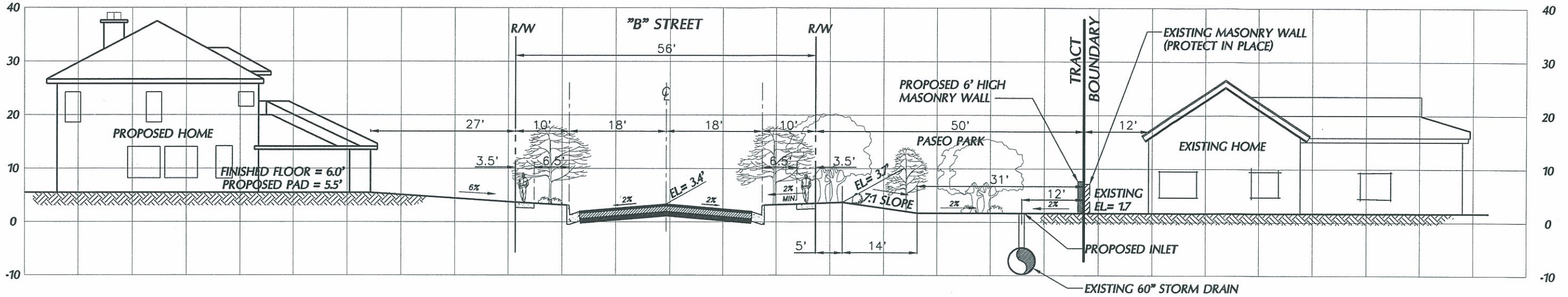


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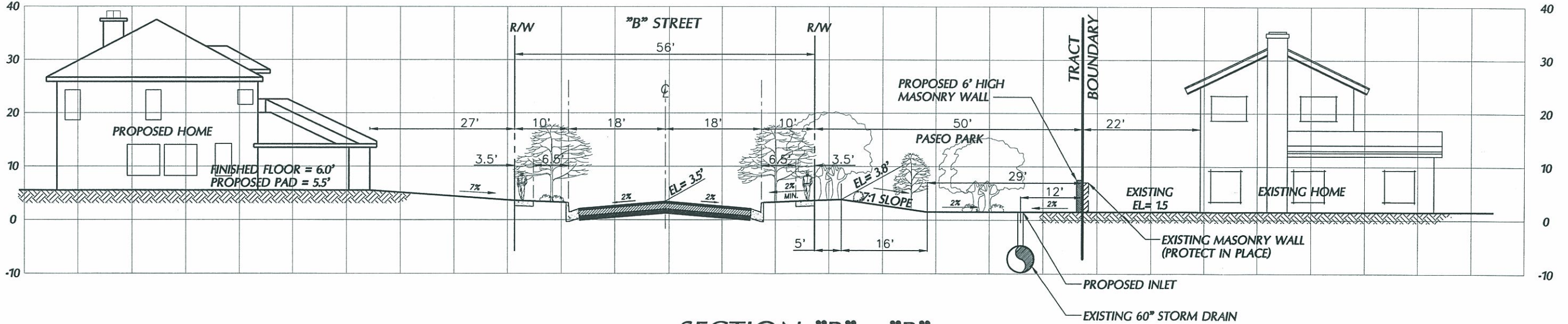
EDAW, Inc. 6/11/01

Source: Hunsaker & Associates Irvine, Inc.

Exhibit 60



SECTION "A" - "A"



*SECTION "B" - "B"*

Scale: (approx.) 1"=20'

EDAW, Inc. 6/11/01

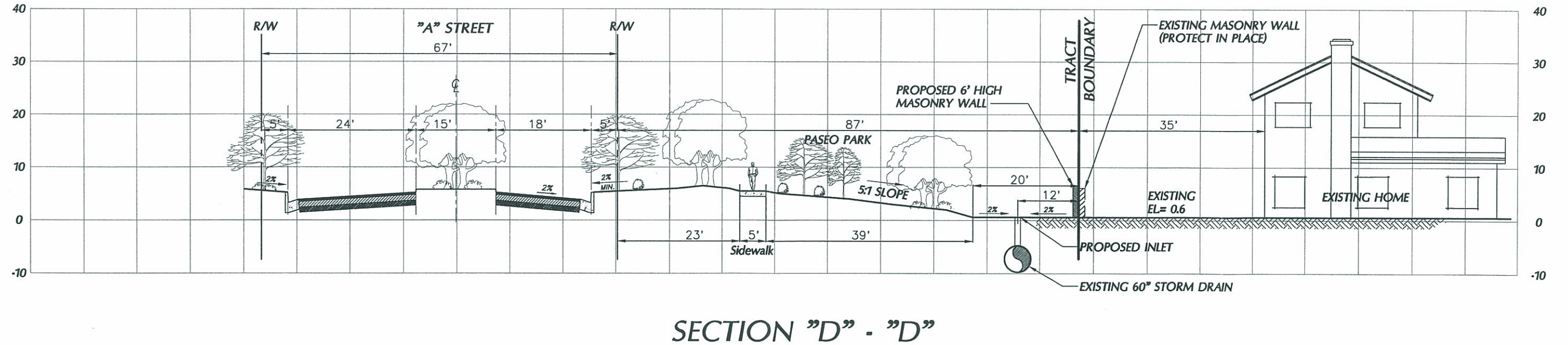
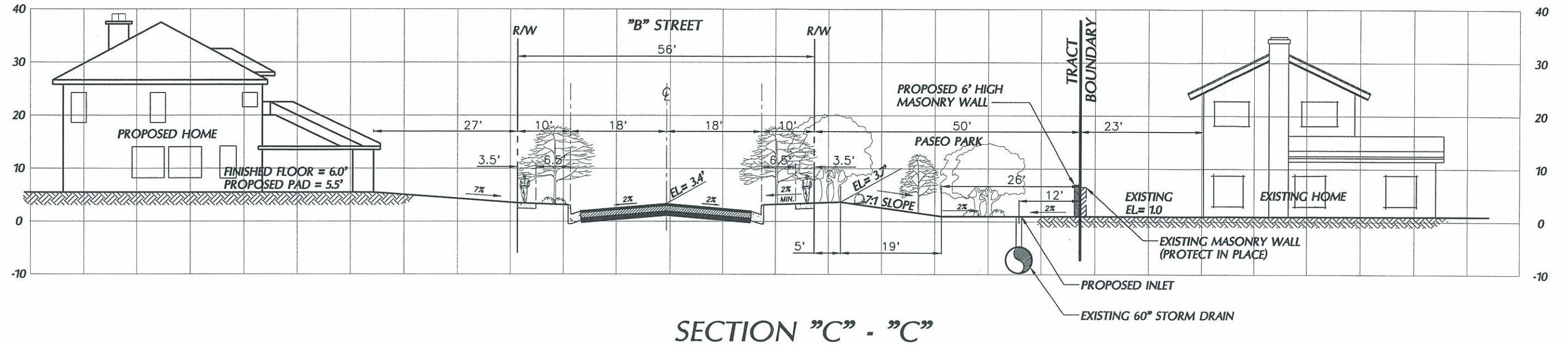
Source: Hunsaker & Associates Irvine, Inc.

**See Key Map  
For Cross-Section Locations**

Exhibit 61a

## Alternative 7-Site Cross Sections

### Reduced Density Alternative (9-lot County) - Updated FEMA with LOMR



Scale: (approx.) 1"=20'

**EDAW, Inc.** 6/11/01

Source: Hunsaker & Associates Irvine, Inc.

**See Key Map  
For Cross-Section Locations**

Exhibit 61b

**Alternative 7-Site Cross Sections**  
Reduced Density Alternative (9-lot County) - Updated FEMA with LOMR



View from rear fence line of existing home (5322 Kenilworth) looking toward simulation of original project.



View from rear fence line of existing home (5322 Kenilworth) looking toward simulation of Alternatives 7 & 9 (base flood elevation of 4.5 feet).



#### **2.4 6.9 ALTERNATIVE 8 - REDUCED DENSITY ALTERNATIVE (0-LOT COUNTY/CCC CONSERVATION WITH EXISTING BASE FLOOD ELEVATION (JUNE 2000 FEMA) - 10.9 FEET AT NORTHEAST CORNER**

##### **Description of Alternative**

Alternative 8 differs from the two previous alternatives in that no dwelling units are proposed within the County. Similar to Alternative 6, however, the proposed elevations reflect June 2000 FEMA BFEs (10.9 feet) (NAVD 88). This alternative plan avoids all County eucalyptus trees (including the eucalyptus ESHA located in the County portion of the project site, (please refer to Exhibit 63, Fish and Game ESHA Map)) by avoiding development within the County portion and assuming designation of California Coastal Commission Conservation on the County portion of the site. Under this alternative, the number of units in the City parcel have been reduced by 18 units to accommodate buffers which assist in off-setting impacts of the revised base flood elevation for the site. As shown in Exhibit 48, the Approximate Base Flood Elevations (BFE), this alternative reflects the BFE of 10.9 feet at northeast corner of the site. Considering the above discussed factors, this alternative results in a total project dwelling unit reduction of ~~47~~ **45**, from ~~208~~ **206** to 161 dwelling units (please refer to Exhibits 64, Conceptual Land Use Plan 161 lots; Exhibits 65, **65a**, and 66, Tentative Tract Maps for City and County; and Exhibit 67, Conceptual Landscape Plan).

The Reduced Density Alternative (0-lot County) with Existing Base Floodplain Elevation (June 2000 FEMA) results in the following changes to the entire project. First, the alternative plan will have a total of 77 estate lots with a minimum size of 6,000 square feet and average size of 7,362 square feet and 84 parkside lots with a minimum size of 5,000 square feet and average size of 5,651 square feet versus 95 estate lots (average 7,030 sq. ft.) and 111 parkside lots (average 5,770 sq. ft.) as identified with the proposed plan. Second, the overall alternative plan will have a gross density of 3.2 dwelling units per acre (du/ac) versus a gross density of 4.13 du/ac with the originally proposed plan. Third, the alternative plan provides for 16.1 acres of park / open space use versus ~~8.4~~ **8.2** acres of park / open space under the proposed plan. Fourth, the alternative land use plan provides for avoidance and preservation in place of the remnant pickleweed area and the EPA delineated pocket wetland area. Fifth, the alternative land use plan provides for a 767.3-foot buffer from the closest proposed residential use to the portion of the ESHA located on-site versus a 60-foot buffer identified with the originally proposed plan. Lastly, the alternative land use plan includes a 133-foot separation (including a 50-foot wide paseo park) from the existing residential units along Kenilworth to the closest proposed residential units.

The proposed applications discussed in the Draft EIR (i.e., General Plan, zoning maps and CUP) will be revised to reflect this alternative layout.

Under this scenario, City staff would also consider the non-annexation alternative. Within this non-annexation alternative, the total number of residential dwelling units proposed within the City of Huntington Beach portion of the project would remain unchanged (i.e., 161 units), because no units are assumed within the County based upon the CCC Conservation designation.

## **Environmental Assessment**

The following is a review of potential environmental effects of the Reduced Density Alternative (0-lot County) with Existing Base Floodplain Elevation (June 2000 FEMA) described above and as shown in the above referenced exhibits.

It should be noted that the Mitigation Measures contained in the original Draft EIR and referenced in the following sections are included in their entirety within Section 4.0 of this document.

### **Land Use**

This alternative would result in land use impacts similar to those associated with the original project. Similar to the original project, the alternative plan may result in impacts related to the provision of affordable housing. Mitigation Measure 1 to ensure that no inconsistencies with the City's Affordable Housing policy would still apply to this alternative plan. Density of the original project would be reduced from 4.13 du/ac proposed under the original project to 3.2 du/ac under the Reduced Density Alternative (0-lot County) with Existing Base Floodplain Elevation (June 2000 FEMA). This alternative is consistent with the adopted City of Huntington Beach General Plan land use designation of RL (Residential, Low Density) and with the City of Huntington Beach applicable goals and policies of the General Plan.

Additionally, implementation of the proposed project would result in no development within the 4.5-acre County parcel consistent with the CCC Conservation November 2000 decision to redesignate this parcel as conservation. Because a lawsuit is pending on the current Bolsa Chica LCP designations, the County portion of the project site is currently designated as MLR (Medium low residential, 6.5 - 12.5 dwelling units per acre). However, no development would occur under this alternative, therefore, no plan consistency impacts would result.

### **Aesthetics/Light and Glare**

Although the Reduced Density Alternative (0-lot County) with Existing Base Floodplain Elevation (June 2000 FEMA) would result in the development of ~~47~~ **45** less units than the original project, the alternative still may be perceived as having a substantial, demonstrable, negative aesthetic effect due to the reduction of viewable open space areas. The increases in pad elevations (ranging from 10.9 feet (NAVD 88) to 11.5 feet (NAVD 88)) associated with this alternative mainly affect the northern portion of the site and are discussed in the paragraphs below. As stated above, the alternative plan also includes 7.7 additional acres of open space. Approximately, 2 acres of the 7.7 additional acres comprise a 50-foot wide linear paseo park, which will act as a buffer between the existing Kenilworth residential units and the proposed residential units (please refer to Exhibits 68 - 69b). The paseo park also provides pedestrian access to the proposed 8.2-acre public park (4.1 acres of passive public park and 4.1 acres of active public park) at the northwest corner of the site. Overall, the reduction of total dwelling units (i.e., ~~47~~ **45** units less) and addition of 7.7 acres of park space will assist in offsetting the aesthetic impacts associated with increased pad elevations across the site. Mitigation Measures 1 and 2 under Aesthetics would still apply to this alternative.

The following outlines the visual impacts to the existing adjacent homes located off of Kenilworth. The original plan analyzed in the Draft EIR depicted the proposed homes across

from Kenilworth at pad elevations of 0.08 feet to 2.1 feet (NAVD 88). The proposed homes were to be located/setback (rear yard setback) 25 to 35 feet from the existing Kenilworth homes. Under the Reduced Density Alternative (0-lot County) with Existing Base Flood Elevation (June 2000 FEMA), the proposed pad elevations would increase to a range of 11.1 feet to 11.3 feet (NAVD 88) across different sections along Kenilworth (please refer to Exhibits 68, 69a and 69b, Key Map and Site Cross Sections, on the following pages). Although this increase is 9 to 10 feet above the original plans, the proposed homes would be located 133 to 154 feet from the existing Kenilworth homes. This is a 108 to 119 feet increase in separation of the original plan. The 133 foot separation is comprised of a 50-foot wide linear paseo park, which lies immediately adjacent to the existing Kenilworth homes; a 56-foot roadway (i.e., "B" Street), which lies to the south of the paseo park, and a 27-foot front yard setback of the proposed Parkside Estates homes. At the project entry the 133-foot separation expands to 154 feet. This expansion occurs within the paseo park (i.e., 87 feet vs. 50 feet) and the entry roadway which includes a 15-foot landscaped median (i.e., 67 feet vs. 56 feet).

### Visual Simulation

In order to provide a realistic analysis of the potential aesthetic impacts of the proposed alternative on the existing residential development along Kenilworth, a visual simulation study was conducted by Focus 360. The study involved taking a series of photographs of the existing conditions (please refer to Exhibit 55, All Alternatives Visual Simulations - Existing Condition (under Alternative 6)). The first view on Exhibit 55, is taken from the rear wall/fence line of an existing home (5322 Kenilworth Drive). The photo depicts a panoramic view across the project site to the CO5 Channel. The second photo on Exhibit 55 was taken from the corner of Graham Street looking west, depicting the rear wall along the existing residential units. The photo also shows the backs of the existing Kenilworth homes and the existing vegetation, which currently interrupts the view across the project site. Because of this existing vegetation and in order to provide a "worst case" visual analysis, the photograph of the existing project site was taken from the Kenilworth home rear wall/fence on the Shea property.

The existing condition view ( top photo on Exhibit 55) was then utilized to build the visual simulation for the original project analyzed in the Draft EIR and the proposed alternative (please refer to Exhibit 56, Alternatives 6 & 8 - Visual Simulations - Reduced Density Alternative - June 2000 FEMA (under Alternative 6)). Exhibit 56 shows the proposed alternatives 6 and 8, which consist of existing June 2000 FEMA elevations of 10.9 feet (NAVD 88) along with a simulation of the original project analyzed in the Draft EIR. The simulation shows that the higher pad elevations of the proposed alternative do not create any adverse impacts on the existing homes' privacy and views. The proposed 133-foot separation including a 50-foot landscaped buffer (i.e., paseo park) in this alternative creates more privacy for the existing homes on Kenilworth as compared to the original project. The simulations depict a more aesthetically pleasing view of the proposed alternative's homes' front yards versus the original project's homes' rear yards.

Based upon the above analysis and exhibits included herein, this alternative would result in similar aesthetic impacts as the originally proposed project. Although the pad elevations are higher with this alternative (i.e., 9 to 10 feet), the separation is greater (i.e., 108 to 119 feet) and serves to offset the increase in pad elevations.

This alternative plan would preserve the majority of eucalyptus trees located on the City portion of the site by locating the trees within a park, similar to the original project. Only those trees on

the City parcel that have been designated within the Arborist Report as requiring removal would be removed. The rationale for removing dead or dying trees is provided within the Arborist reports, dated September 29, 1996 and September 1998, respectively. The report prepared for the grove located in the City Parcel is located in Appendix G of the Draft EIR and Appendix B of this document, and the report prepared for the grove located in the County Parcel is located in Appendix B of this document. Mitigation Measure 3 under Aesthetics would still apply to this alternative to reduce impacts related to the removal of any dead or dying trees onsite to a level less than significant. As stated above, this alternative proposes complete avoidance of all the eucalyptus trees located within the County portion of the site, unlike the original project. Additionally, the alternative provides a 767.3-foot buffer from the closest residential unit to the 0.13 acre on-site ESHA. The original project impacts related to the removal of eucalyptus trees and the onsite ESHA are eliminated by this alternative.

The alternative plan may result in impacts to County-proposed trails, similar to the original project. There are existing and proposed 8-foot wide County trails on south and west sides of the project site. The project also proposes 8-foot wide trails within the site. Exhibit 70, Conceptual Recreation and Open Space Plan depicts the proposed trail and bike path plan for the 161 unit alternative plan. Mitigation Measure 4 under Aesthetics would apply to this alternative to reduce impacts to County-proposed trails to a level less than significant.

This alternative will reduce the amount of light and glare in the vicinity of the County parcel compared with the original project due to the fact that development is avoided within the County portion of the project site. However, compared with existing conditions this alternative will incrementally increase the amount of light and glare in the vicinity of the project site and may impact the Bolsa Chica Preserve area south of the site, similar to but less than the original project. Mitigation Measures 1 through 3 under Light and Glare would still apply to this alternative.

Overall, this alternative will result in less than significant aesthetic impacts after mitigation, similar to the original project.

### **Transportation/Circulation**

This alternative would contribute to short-term construction related impacts due to the addition of truck and construction vehicle traffic. The short-term impacts would be more than the original project due to an increase in the amount of dirt hauled (i.e., import) due to the increased floodplain elevation for the site, and the duration of the grading operation. The same assumptions as in the original project (i.e., worst case scenario - using one entrance/exit off of Graham Street) have been used in assessing the short-term daily trips for grading operations, therefore, the number of truck trips hauling dirt daily would remain the same as in the Draft EIR, however, the duration of the grading operation would be lengthened from 6 to 11 months (please refer to Earth Resources). Mitigation Measure 1 regarding short-term impacts would still apply to this alternative. Short-term transportation/circulation impacts will be less than significant after mitigation.

This alternative also would result in long-term vehicular increases on the surrounding street system. Traffic improvements proposed for the project area still would be implemented with the alternative plan, as they also would be necessary with this alternative. However, due to the fact

that this alternative proposes the development of 47 45 fewer units than the original project, this plan would generate lower project traffic volumes than the original project. Long-term impacts associated with transportation/circulation would be less than the original project. As described in the Draft EIR, the original project would result in approximately 2,496 Average Daily Trips (ADT). Based on the proposed 161 dwelling units, the alternative would result in 1,932 ADT. This represents 564 fewer trips per day or a 23 percent reduction in ADT. Additionally, this scenario presents a total of 155 trips during the morning peak hour and 193 trips during the evening peak hour, compared to 200 and 250 morning and evening peak hour trips for the original project. Although there would be a reduction in ADT with this alternative plan, Mitigation Measures 2 through 4 regarding potential impacts to pedestrian, bicycle, and vehicular safety related to the establishment of access and an on-site circulation system and Mitigation Measure 5 regarding potential level of service deficiencies at the intersections of Bolsa Chica Street and Warner Avenue and Graham Street and Warner Avenue under the 2020 condition would still apply.

### **Air Quality**

Impacts from the alternative plan associated with short-term air quality would be more than the original project, due to an increase in the amount of dirt hauled and the duration of the grading operation from 6 to 11 months (please refer to Earth Resources). Impact significance, however, is based upon a daily or quarterly pollution generation level which is not substantially different from the original Draft EIR project, because the greater fill import volume is spread out over a longer timeframe. The potential impact significance is also reduced by the construction of 47 45 fewer homes which would result in less construction activity air quality impacts (i.e., emissions from construction equipment, haul vehicles and fugitive dust) than those generated by the original project. The combination of an extended construction duration and fewer units built will create peak activity day unmitigated NO<sub>x</sub> emissions in excess of SCAQMD thresholds that are almost identical to the original project (58 percent "excess" for the original project versus 55 percent for this alternative) (refer to Appendix E, Supplemental Air Quality Data). Mitigation Measures 1 through 6 in the Draft EIR regarding short-term impacts during construction activities would still be applicable to this alternative. Application of these Mitigation Measures would reduce short-term construction activity impacts to a level that is less than significant on a daily or quarterly basis. The extension of the emissions duration from 6 to 11 months is considered an adverse, but less than significant air quality impact.

This alternative would result in fewer long-term mobile source emissions than the original project due to the reduced ADT from 47 45 less units. Estimation of mobile source emissions is based on ADT; therefore, since the plan alternative is estimated to result in a 23 percent reduction in ADT (as described above), it is assumed that the plan alternative would result in proportionately less mobile source emissions (i.e., 23 percent). Additionally, the proposed 161 dwelling units proposed under this alternative is below the AQMD air quality threshold for single family, which is 166 dwelling units (CEQA Air Quality Handbook, Table 6.2). Therefore, the long-term air quality impacts would be considered less than significant under this alternative. Mitigation Measures 7 and 8 identified in the Draft EIR to reduce impacts related to long-term impacts would still apply to this alternative, thereby further reducing the alternative's incremental contribution to this impact to a level less than significant.

## **Noise**

This alternative would result in more short-term impacts compared to the original project during construction activities due to an increase in the amount of dirt hauled and increased duration of grading operation from 6 to 11 months. Standard City policies and Mitigation Measures 1 and 2 from the Draft EIR would still apply to this alternative. Short-term noise impacts will be less than significant after mitigation.

Long-term noise impacts due to the increase in traffic would be less than the original project due to less traffic being generated than the original project. Estimation of noise impacts due to increase in traffic is based on ADT; therefore, since the alternative plan is estimated to result in a 23 percent reduction in ADT (as described above), it is assumed that the plan alternative would result in proportionately less traffic-related noise impacts (i.e., 23 percent). Although the plan alternative would result in less traffic-related noise impacts, Mitigation Measure 3 in the Draft EIR identified to ensure new walls are constructed to achieve maximum noise reduction would still apply to this alternative.

## **Earth Resources**

This alternative would result in similar impacts associated with liquefaction and soil settlement as the original project. The City would require that any proposed development implement remedial grading activities. In order to achieve the required FEMA base floodplain elevation on site, there would be an increase in amount of import, which correlates to the increased elevation. The amount of dirt hauled would be more compared to the original project (please refer to Table BB, Cut, Fill and Import Quantities, above). Additionally, the duration of grading operation under this alternative would be proportionately longer (i.e., 11 months compared to the 6 months in the original project). This is due to the increase in amount of import related to the increased elevations. Mitigation Measures 1 through 6 in the Draft EIR identified to reduce impacts also would apply to this alternative. Grading impacts will be less than significant after mitigation.

## **Drainage/Hydrology**

This alternative would result in increased surface water runoff due to the covering of surface soils with impermeable structures and surfaces less than that of the original project due to the 47 45 fewer homes and provision of 7.7 additional acres of open space/parkland. The development under this alternative also would require the storm drainage improvements as proposed by the original project (please refer to Exhibit 71). Mitigation Measure 1 related to drainage, flooding and cumulative impacts, and Mitigation Measures 2 and 3 related to water quality and cumulative impacts identified in the Draft EIR to reduce impacts also would apply to this alternative.

This alternative's potential impacts related to flooding are discussed below. A majority of this discussion has been summarized from the January 30, 2001 study prepared by Exponent and contained in Appendix C of this document. Because the basis for flood analysis is the project's designation by a FEMA FIRM, the following discussion has been provided.

On June 14, 2000 the Federal Emergency Management Agency (FEMA) issued a LOMR and a revised Flood Insurance Rate Map (FIRM) for flood-prone areas along the East Garden Grove-Wintersburg (C05) and Ocean View (C06) Channels in Huntington Beach, Orange County. The revised FIRM, still identified as Map No. 06059C0036F having a revision date of January 3, 1997, shows the flood hazards as unnumbered A-Zones (this revised map has not been published but a reproducible copy has been provided to the City for circulation by request). An A-Zone designates an area subject to flooding during a 100-year (1% annual chance) event, but because adequately detailed hydraulic analyses have not been performed, no base flood elevations (BFEs) or depths are shown on the map. The February 14, 2000 approximate study (performed by WEST Consultants) submitted by the County of Orange, which formed the basis for FEMA's actions, reported a potential flooding depth of about 8 feet over the proposed Parkside Estates project site. In the absence of a detailed hydraulic analysis, new BFE's were "informally" produced by the County and as shown on Exhibit 38, range between 10.2 feet and 10.9 feet (NAVD 88 datum)<sup>4</sup>. These BFE's were utilized to calculate the pad elevations for this alternative.

The June 2000 FIRM superseded the previously existing FIRM (Map No. 06059C0036F) which had placed the Shea Homes property in Zone A99, as identified and discussed in the Draft EIR. Because the A99 zone is considered an "interim" zone, the local authority (i.e., the City) has the discretion to dictate minimum pad elevations for a project on the best available information. At the time, the Draft EIR was prepared, the City of Huntington Beach required minimum pad elevations for Tentative Tract 15377 and 15419 to be 1.00 foot (NAVD 88). The last firm based on a FEMA detailed Flood Insurance Study (FIS) was Map No. 06059C0036E, with an effective date of September 15, 1989. This FIRM showed the proposed Shea Homes property in Zone AH with a BFE of 1 ft (NGVD 29) or 3.44 feet (NAVD 88 datum).

By issuing a LOMR and revised FIRM based on approximate rather than detailed methods, FEMA anticipates that the City of Huntington Beach will require a more detailed Flood Insurance Study from the project applicant to ensure development conforms with National Flood Insurance Program (NFIP) regulations (see below).

As a condition of participating in the NFIP Huntington Beach is required to adopt and enforce floodplain management regulations that meet the minimum standards of the NFIP listed in Title 44 of the Code of Federal Regulations, Section 60.3. In areas designated as approximate Zone A, where FEMA has not provided detailed hydraulic studies, the City must comply with Paragraph 60.3 (b) (3) and (4):

(b) When the Administrator has designated areas of special flood hazards (A zones) by the publication of a community's FHBM or FIRM, but has neither produced water surface elevation data nor identified a floodway or coastal high hazard area, the community shall:

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<sup>4</sup> All elevations in the focused detailed Flood Insurance Study prepared by Exponent for Shea Homes are based on mean sea level, (National Geodetic Vertical Datum of 1929 (NGVD 29)). The Shea Homes development elevations, in separate documents, are based on mean sea level, (North American Vertical Datum of 1988 (NAVD 88)). NGVD 29 elevations may be converted to NAVD 88 elevations by adding 2.44 feet to NGVD 29 elevations.

(3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data;

(4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, including data developed pursuant to paragraph (b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), (d)(2) and (d)(3) of this section;

The proposed Parkside Estates project meets the threshold size necessary to trigger this regulation. The project applicant retained Exponent to prepare a detailed Flood Insurance Study for the property. The results of the study, which predict a lower base flood elevation for the project site, are discussed under Alternative 7 in the preceding section.

The current effective Flood Insurance Study states the need for a more detailed flood study, and the NFIP regulations require the City of Huntington Beach to refine the approximations in the present study for development projects larger than 50 units. The BFE's presented in this alternative indicate potentially greater impacts related to flooding than the existing and proposed condition, which was analyzed in the DEIR. However, the proposed design of this alternative, including the higher pad elevations, storm drain improvements, addition of greater pumping capacity to the Slater Pump Station, and improvements to the East Garden Grove Wintersburg Flood Control Channel, will mitigate the impacts to a level of less than significant.

The increase in flood water surface elevation to adjacent properties caused by the proposed development under this alternative is zero foot for riverine flooding, and 0.12 foot for combined riverine and coastal storm surge flooding. The zero to negligible increase in water surface elevation from the project alternative is because drainage improvements (shown in Exhibit 58) to be made as conditions of development more than make up for displacement by fill of storage volume on the project site and closure of the connection to Bolsa Chica lowlands draining the property to the west. The proposed storm drain improvements include additional gravity drainage from the property to the Slater Pump Station and additional pumping capacity at the station. These storm drain improvements are shown on Exhibit 58. Mitigation Measures 1 through 3 in the Draft EIR would apply to this alternative.

### **Biological Resources**

This alternative would result in fewer impacts related to biological resources than the original project. Mitigation Measure 1, which ensures that no construction impacts affect the potential active nesting sites for native birds of prey would still apply. As described in the Draft EIR, the original project would result in the removal of an EPA delineated pocket wetland and a 0.2 acre pickleweed patch located on the County portion of the project site. Implementation of the proposed alternative would not result in removal of the EPA delineated wetland nor the 0.2-acre pickleweed patch; therefore, the portion of Mitigation Measure 2 under Biological Resources that is designed to mitigate for the loss of wetland would not be required. However, the latter portion of Mitigation Measure 2 still applies to the Reduced Density Alternative (0-lot County) with Existing Base Floodplain Elevation (June 2000 FEMA), which requires "the preservation

and enhancement of 2 acres of appropriate wildlife habitat per the Department of Fish and Game." Additionally, this Reduced Density Alternative (0-lot County) with Existing Base Floodplain Elevation (June 2000 FEMA) provides 5 acres of open space in the County parcel. An on-site preservation and enhancement plan for 2 acres will be implemented under this alternative per Mitigation Measure 2 of the EIR. Overall, this alternative results in less impacts to biological resources.

## **Cultural Resources**

This alternative would result in potential impacts to archaeological resources, similar to those of the original project. Subsequent to the release of the Draft EIR and in response to comments, Mr. Brian Dillon, consulting archeologist conducted an additional survey of the project site. A copy of this report, dated, February 14, 2000, is contained in Appendix D of this document. The Tentative Tract Maps contained in the Draft EIR were revised to ensure no remedial grading impacts would occur to ORA 83 as a result of project implementation. Please refer to Section 3.0 of this document. The result of the study, prepared by Brian Dillon, states that the revision of the TTM's and redesign of the site result in mitigation of potential adverse impacts to the CA-ORA-83/86 archaeological site by avoidance of the site. The previous Tentative Tract Map in the Draft EIR included a potential overlap of roads, lots, etc. onto the easternmost fringe of archaeological site CA-ORA-83/86. The revised 161 unit TTM for this alternative includes relocation of roads, lots, etc. away from the archaeological site in an easterly direction, resulting in complete avoidance of the archaeological site. Mitigation Measures 1 through 3 identified in the Draft EIR Cultural Resources would apply to this alternative.

## **Public Services and Utilities**

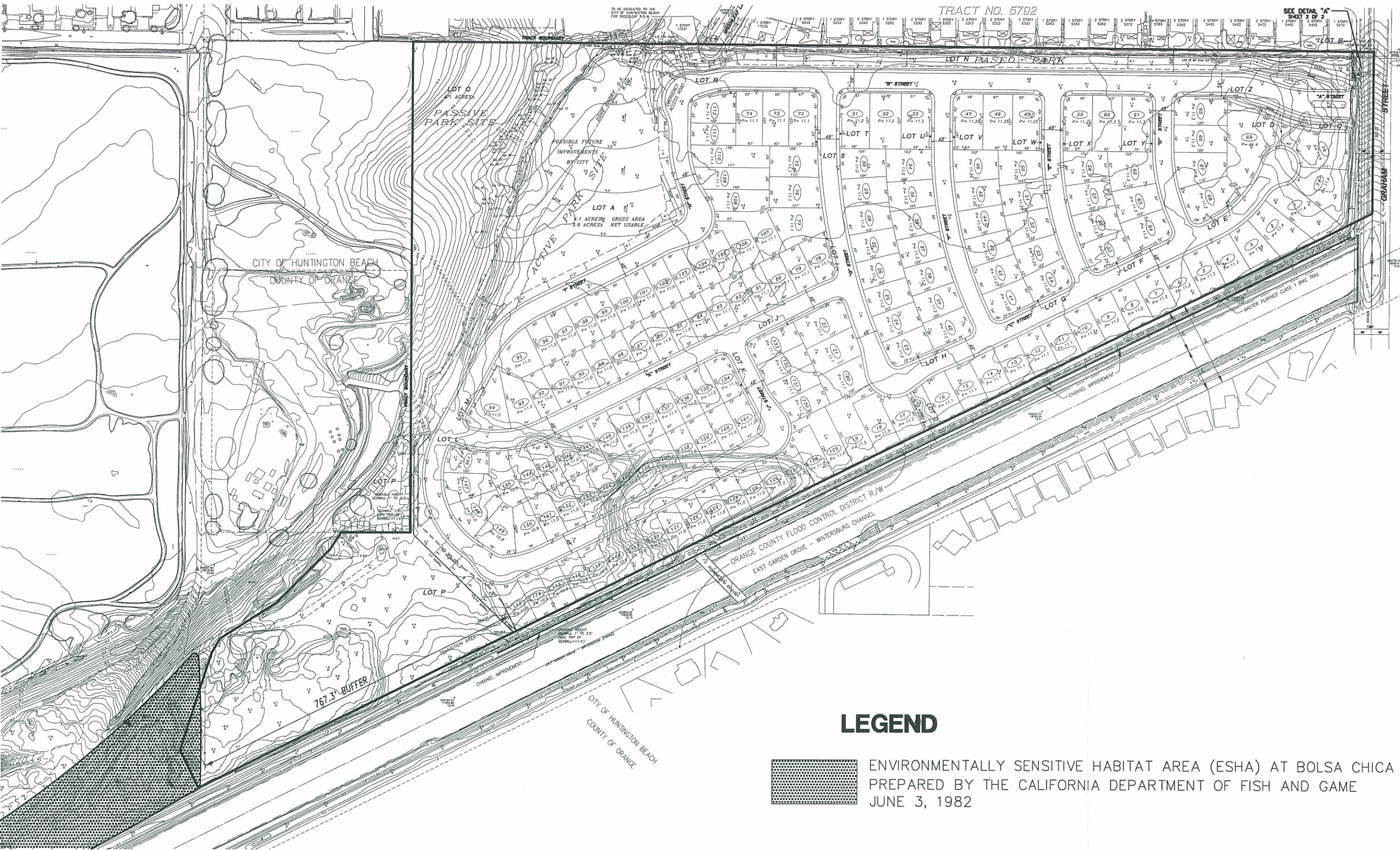
This alternative would result in impacts to public services and utilities that would be less than the original project. Because this alternative would result in the development of 47 ~~45~~ fewer units, the demands on existing public services and utilities (i.e., schools, sewer and water, fire protection, police protection, library, gas, electricity, hospitals, transit, etc.) would be less. Although the impacts would be less with this alternative, Mitigation Measures 1 through 18 under Public Services and Utilities identified in the Draft EIR would still apply to ensure impacts are reduced to a level less than significant.

## **Status of Alternative**

This alternative is technically feasible. It meets the project applicant's objectives. This alternative reduces impacts of the original project in that it completely avoids the eucalyptus trees, the EPA delineated pocket wetland, and the pickleweed patch located on the County portion of the site, and provides a 767.3-foot buffer from the closest residential use to the 0.13 acre on-site ESHA. Furthermore, it provides 7.7 additional acres of open space. However, this alternative substantially increases the finished floor elevations, compared to the original project, which in turn increases the amount of import and hauling of dirt and lengthens the duration of grading operations and associated impacts (i.e., short-term air and noise impacts, etc.). Additionally, if the BFEs assumed for this alternative are correct, impacts related to flooding under this alternative could potentially be greater than under the condition analyzed in the Draft EIR in the absence of the increased pad elevations. However, the proposed design of this alternative, including the higher pad elevations, storm drain improvements, addition of greater

pumping capacity to the Slater Pump Station, and improvements to the East Garden Grove Wintersburg Flood Control Channel, will mitigate the impacts to a level of less than significant.

Thus, although it reduces many impacts compared to the original project, it increases impacts related to grading, specifically the amount of time (i.e., 11 months vs. 6 months), which would be required to import dirt, to comply with current approximate FIS base floodplain elevations. Because this alternative reduces some of the impacts from the original project yet increases other impacts, it is considered to be environmentally similar to the original project and remains under consideration.



①

Scale: (approx.) 1"=215'

EDAW, Inc. 6/11/01

Source: Hunsaker & Associates Irvine, Inc.



**Scale: (approx.) 1"=200'**

EDAW, Inc. 6/11/01

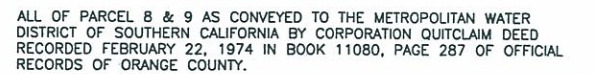
Source: Hunsaker & Associates Irvine, Inc.

### AVERAGE LOT SIZE

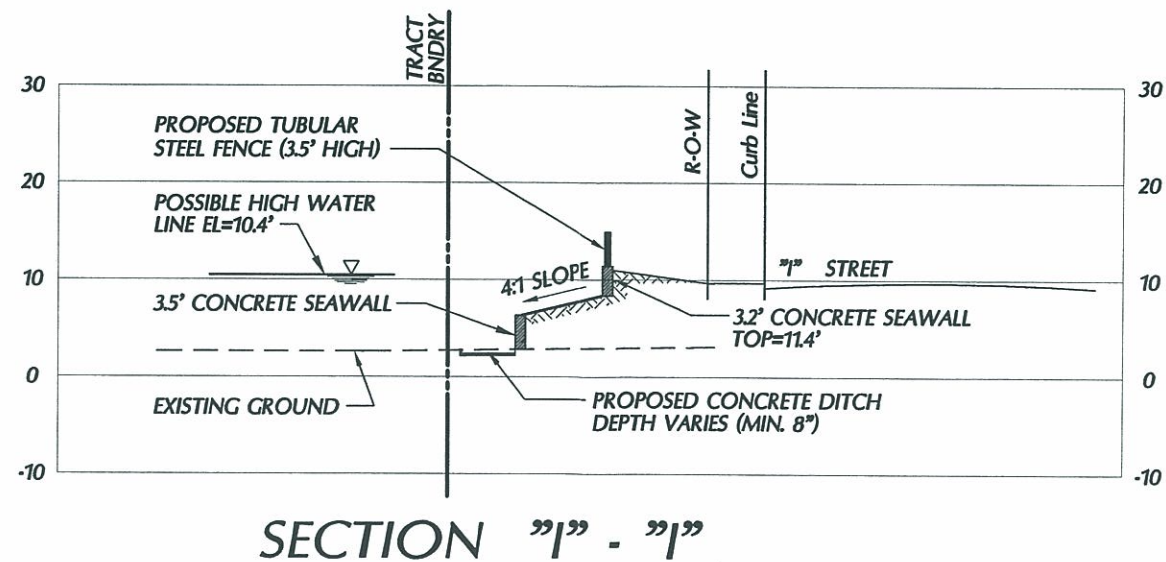
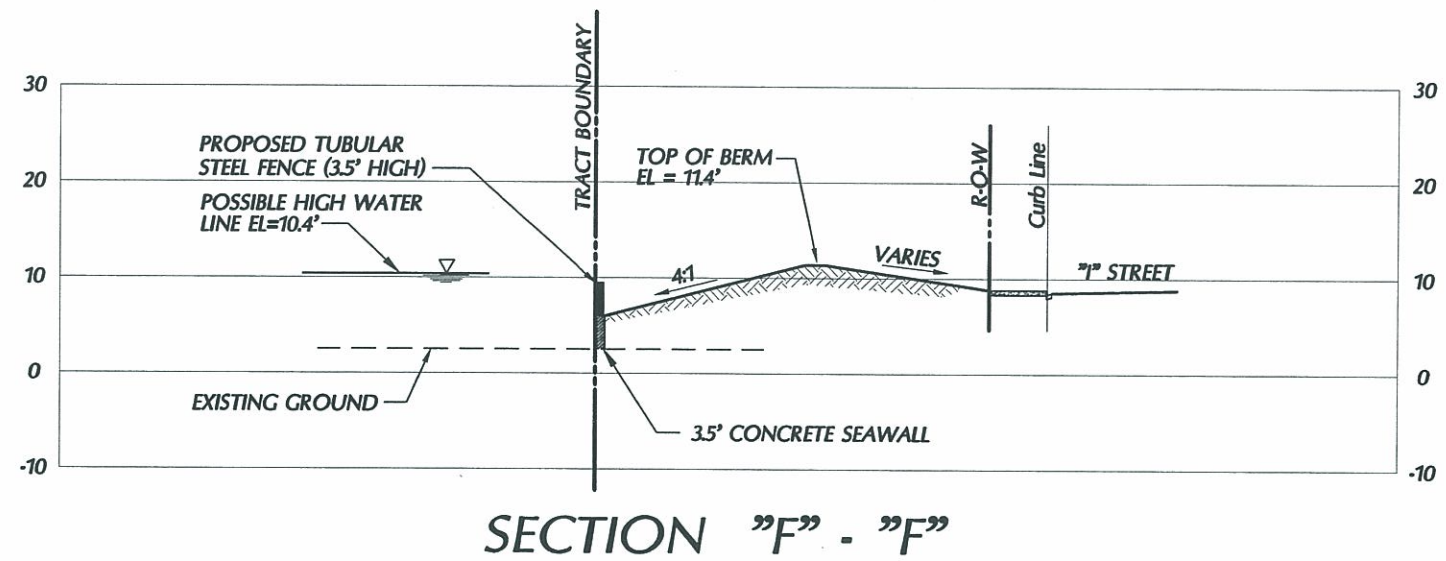
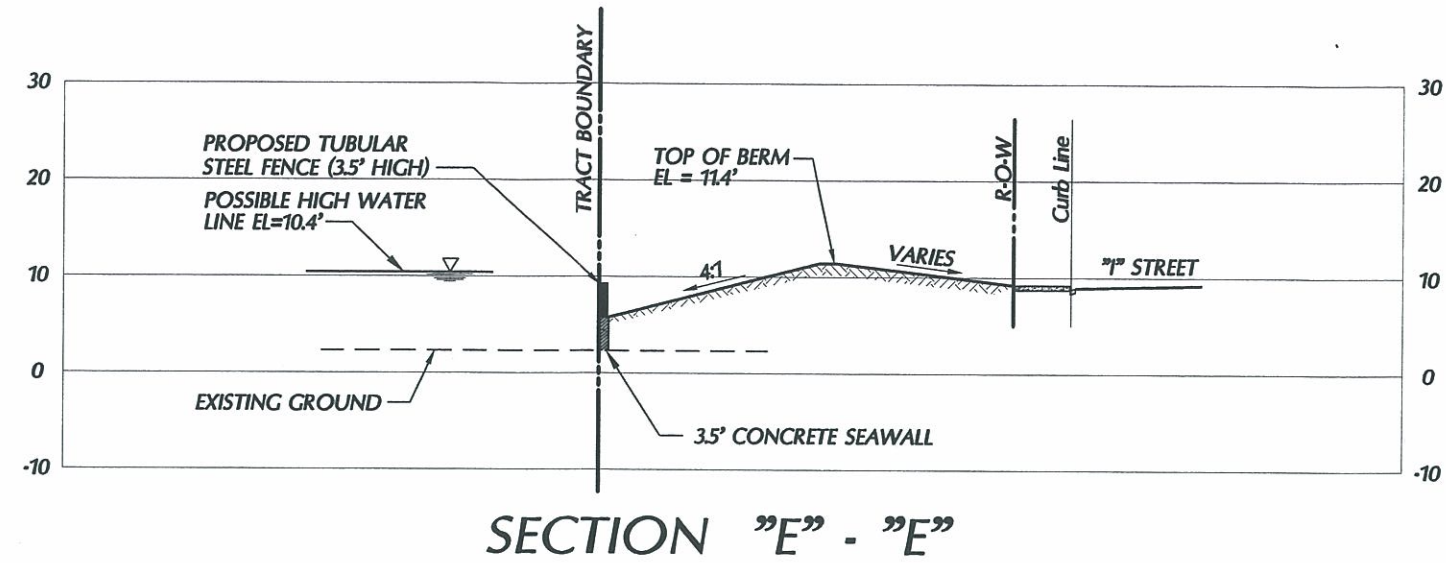
<b>ESTATES</b>	<b>7,362 S.F.</b>
<b>PARKSIDE</b>	<b>5,651 S.F.</b>
<b>OVERALL PROJECT</b>	<b>6,469 S.F.</b>

Exhibit 64

## Alternatives 8 & 9-Conceptual Land Use Plan 161 Lots



## Alternative 8-Tentative Tract Map No. 15377 (City)



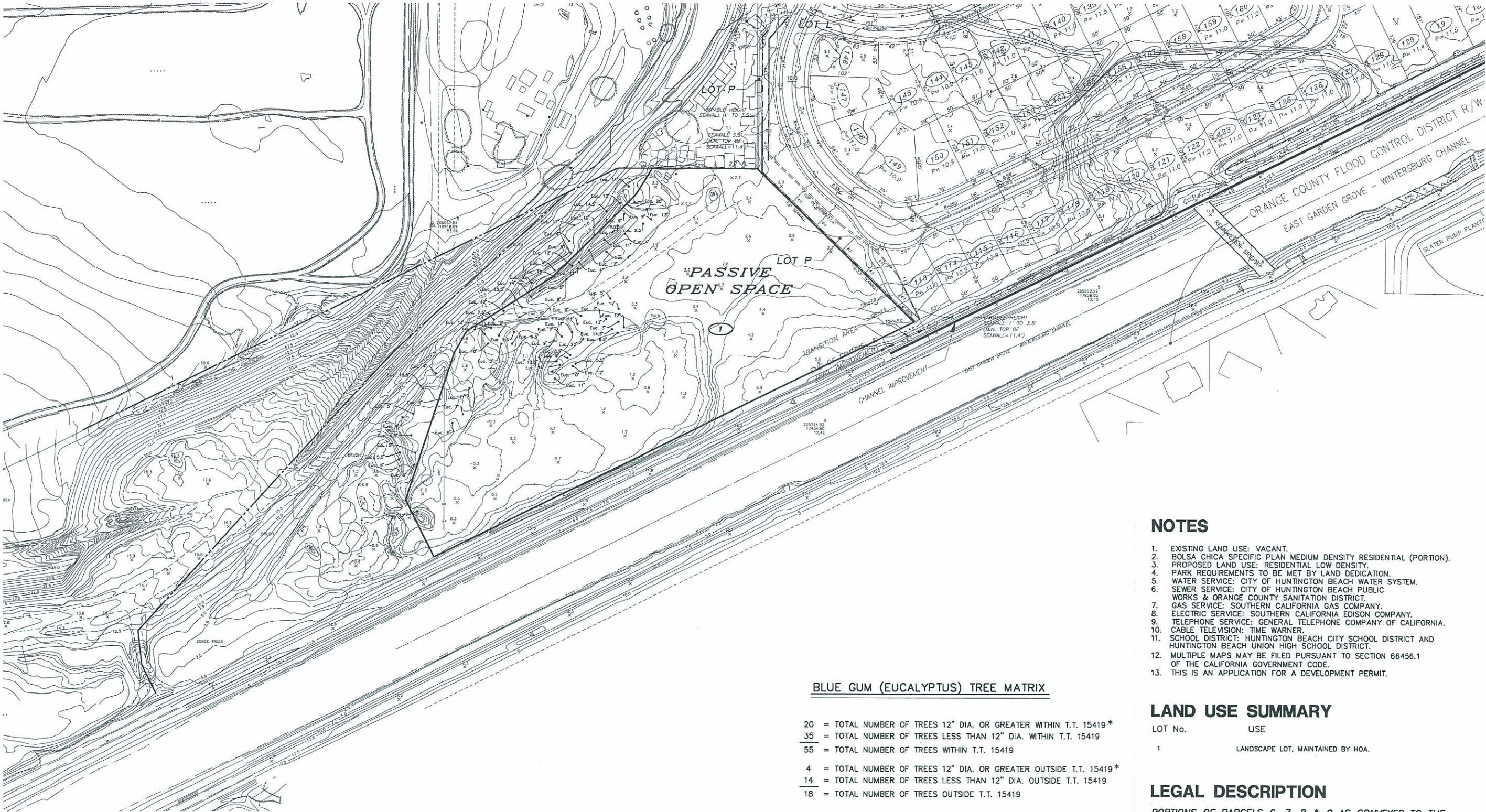
Scale: (approx.) 1"=20'

**EDAW, Inc.** 3/18/02

Source: Hunsaker & Associates Irvine, Inc.

Exhibit 65a

**Alternative 8-TTM No. 15377 - Cross Sections (City)**  
Reduced Density Alternative (0-lot County) - June 2000 FEMA



NOTES

1. EXISTING LAND USE: VACANT.
2. BOLSA CHICA SPECIFIC PLAN MEDIUM DENSITY RESIDENTIAL (PORTION).
3. PROPOSED LAND USE: RESIDENTIAL LOW DENSITY.
4. PARK REQUIREMENTS TO BE MET BY LAND DEDICATION.
5. WATER SERVICE: CITY OF HUNTINGTON BEACH WATER SYSTEM.
6. SEWER SERVICE: CITY OF HUNTINGTON BEACH PUBLIC WORKS & ORANGE COUNTY SANITATION DISTRICT.
7. GAS SERVICE: SOUTHERN CALIFORNIA GAS COMPANY.
8. ELECTRIC SERVICE: SOUTHERN CALIFORNIA EDISON COMPANY.
9. TELEPHONE SERVICE: GENERAL TELEPHONE COMPANY OF CALIFORNIA.
10. CABLE TELEVISION: TIME WARNER.
11. SCHOOL DISTRICT: HUNTINGTON BEACH CITY SCHOOL DISTRICT AND HUNTINGTON BEACH UNION HIGH SCHOOL DISTRICT.
12. MULTIPLE MAPS MAY BE FILED PURSUANT TO SECTION 66456.1 OF THE CALIFORNIA GOVERNMENT CODE.
13. THIS IS AN APPLICATION FOR A DEVELOPMENT PERMIT.

LAND USE SUMMARY

LOT No.	USE
1	LANDSCAPE LOT, MAINTAINED BY HOA.

LEGAL DESCRIPTION

PORTIONS OF PARCELS 6, 7, 8 & 9 AS CONVEYED TO THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA BY CORPORATION QUITCLAIM DEED RECORDED FEBRUARY 22, 1974 IN BOOK 11080, PAGE 287 OF OFFICIAL RECORDS OF ORANGE COUNTY.

BLUE GUM (EUCALYPTUS) TREE MATRIX

- 20 = TOTAL NUMBER OF TREES 12" DIA. OR GREATER WITHIN T.T. 15419 \*
- 35 = TOTAL NUMBER OF TREES LESS THAN 12" DIA. WITHIN T.T. 15419
- 55 = TOTAL NUMBER OF TREES WITHIN T.T. 15419
- 4 = TOTAL NUMBER OF TREES 12" DIA. OR GREATER OUTSIDE T.T. 15419 \*
- 14 = TOTAL NUMBER OF TREES LESS THAN 12" DIA. OUTSIDE T.T. 15419
- 18 = TOTAL NUMBER OF TREES OUTSIDE T.T. 15419
- 0 = TOTAL NUMBER OF TREES REMOVED WITH PROPOSED DEVELOPMENT
- 73 = TOTAL NUMBER OF TREES PRESERVED WITH PROPOSED DEVELOPMENT

\* REFER TO PAGES 5 AND 6 (TABLE 1) OF THE SEPTEMBER, 1998 CONSULTING ARBORIST'S REPORT, PREPARED BY ALDEN KELLEY.



Scale: (approx.) 1"=150'

EDAW, Inc. 6/11/01

Source: Hunsaker & Associates Irvine, Inc.



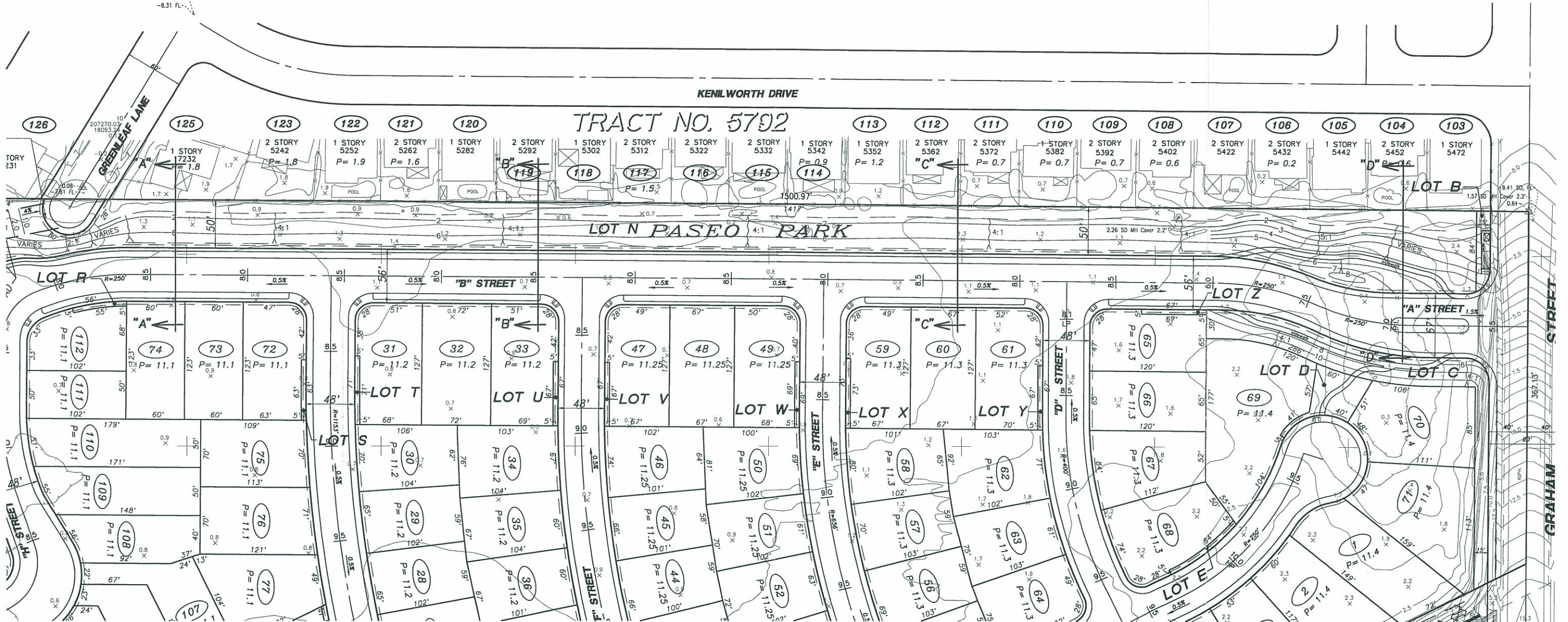
Scale: (approx.) 1"=225'

EDAW, Inc. 6/11/01

Source: Hunsaker & Associates Irvine, Inc.  
Frank Radmacher Associates, Inc

Exhibit 67

Alternatives 8 & 9-Conceptual Landscape Plan - Reduced Density Alternative  
(0-lot County) - June 2000 FEMA



Scale: (approx.) 1"=100'

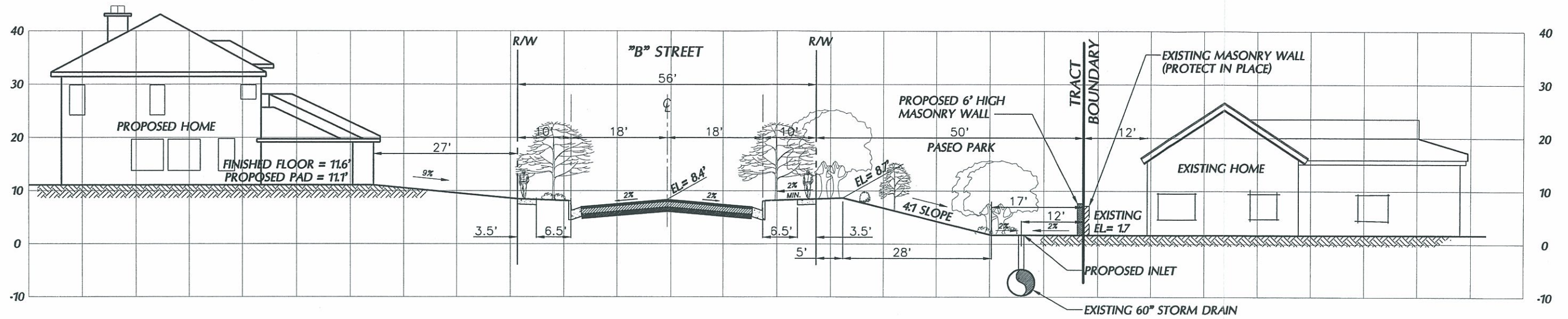
EDAW, Inc. 6/11/01

Source: Hunsaker & Associates Irvine, Inc.

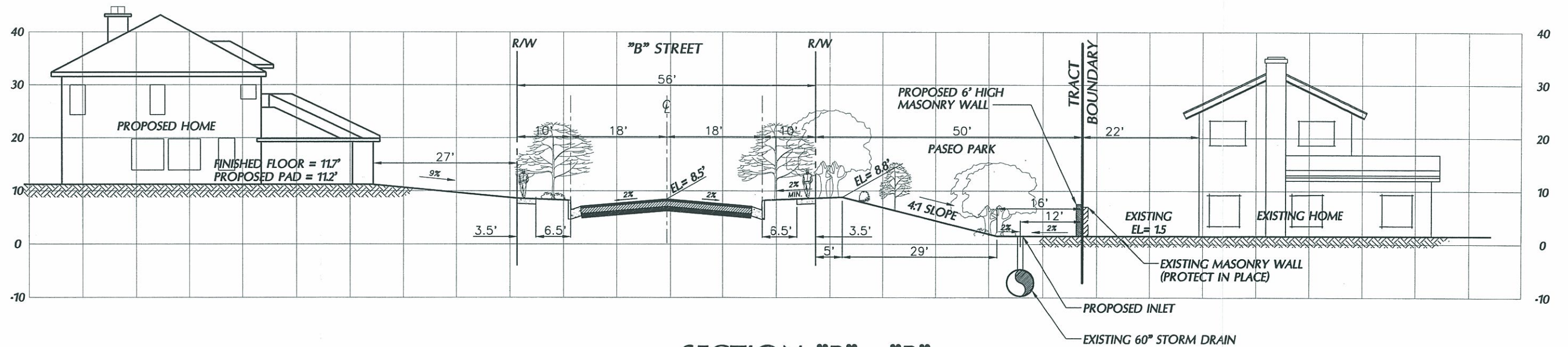
Exhibit 68

### Alternative 8-Key Map

Reduced Density Alternative (0-lot County) - June 2000 FEMA



SECTION "A" - "A"



SECTION "B" - "B"

Scale: (approx.) 1"=20'

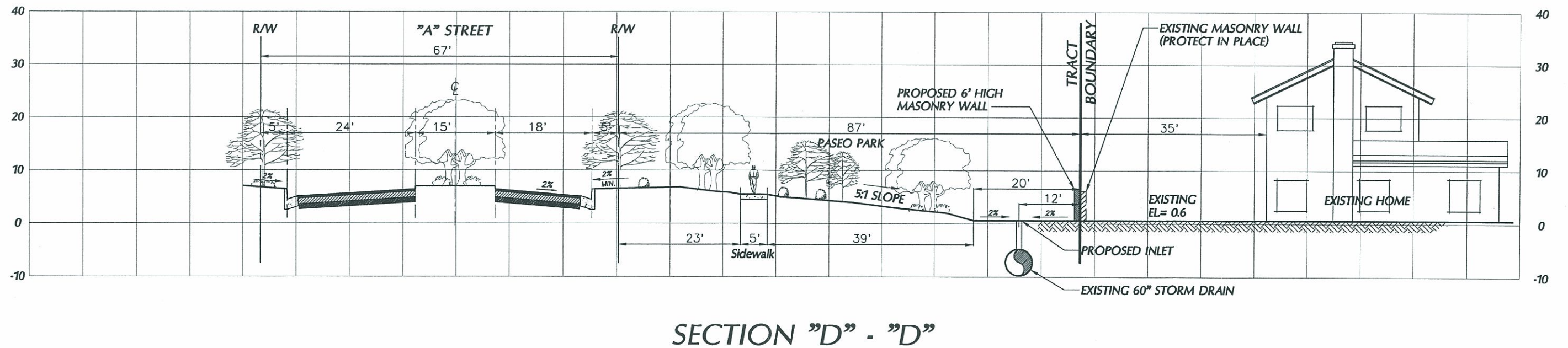
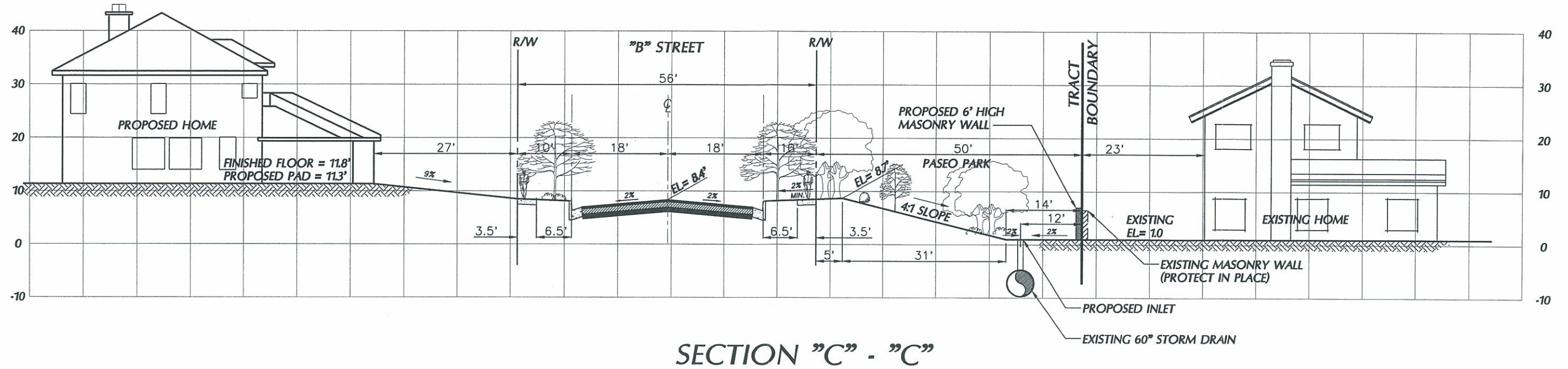
**EDAW, Inc.** 6/11/01

Source: Hunsaker & Associates Irvine, Inc.

See Key Map  
For Cross-Section Locations

Exhibit 69a

**Alternative 8-Site Cross Sections**  
Reduced Density Alternative (0-lot County) - June 2000 FEMA



Scale: (approx.) 1"=20'

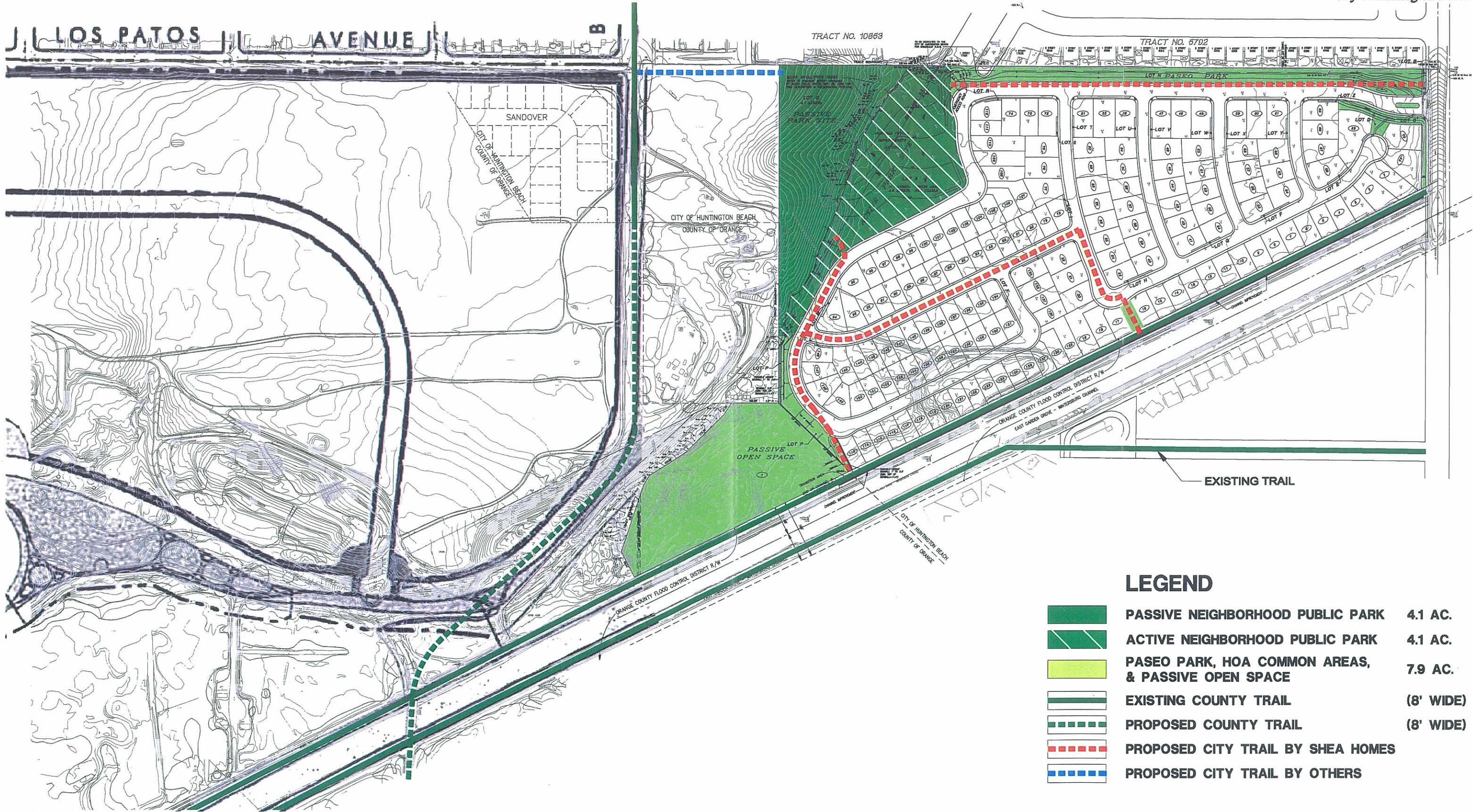
**EDAW, Inc.** 6/11/01

Source: Hunsaker & Associates Irvine, Inc.

**See Key Map  
For Cross-Section Locations**

Exhibit 69b

**Alternative 8-Site Cross Sections**  
Reduced Density Alternative (0-lot County) - June 2000 FEMA



LEGEND

	PASSIVE NEIGHBORHOOD PUBLIC PARK	4.1 AC.
	ACTIVE NEIGHBORHOOD PUBLIC PARK	4.1 AC.
	PASEO PARK, HOA COMMON AREAS, & PASSIVE OPEN SPACE	7.9 AC.
	EXISTING COUNTY TRAIL	(8' WIDE)
	PROPOSED COUNTY TRAIL	(8' WIDE)
	PROPOSED CITY TRAIL BY SHEA HOMES	
	PROPOSED CITY TRAIL BY OTHERS	

Scale: (approx.) 1"=300'

EDAW, Inc. 6/11/01

Source: Hunsaker & Associates Irvine, Inc.  
Source: OCTA, Commuter Bikeways Strategic Plan



EDAW, Inc. 6/11/01

**Source: Hunsaker & Associates Irvine, Inc.**

**- FLOOD CONTROL  
CHANNEL IMPROVEMENT  
(SHEET PILE OR APPROVED EQUAL)**

## — SLATER PUMP STATION TO BE UPGRADED

**PROPOSED NEW LINE  
IN GRAHAM STREET (102")  
FROM KENILWORTH DRIVE  
TO PROJECT ENTRY**

**INTERCEPT THE  
60" RCP AT THIS  
LOCATION WITH  
PROPOSED NEW  
102" LINE**

— **PROPOSED LINE**  
(APPROX. 120")

## FUTURE EXTENSION BY OTHERS

**PROPOSED NEW LINE  
TO BE ADDED** LOT 2

## PROPOSED NEW 60" LINE

**PROPOSED NEW  
120" LINE**

**EXISTING 60" RCP —  
TO BE INTERCEPTED**

LOT Q  
4.1 ACRES±  
PASSIVE  
PARK SITE

CITY OF HUNTINGTON BEACH  
-----  
COUNTY OF ORANGE

NOT A PART

PASSIVE<sup>LO</sup>  
OPEN SPACE

ACTIVE PARK

POSSIBLE FUTURE IMPROVEMENTS BY CITY

LOT

4.1 ACRES±  
3.8 ACRES±

CHICAGO RIVER

LAKE MICHIGAN

TRACT NO. 5792

LOT N PASEO PAF

STREET

48' ROP'

**PROPOSED NEW LINE TO BE ADDED**

LOT Z

### PROPOSED NEW 60" LINE

**PROPOSED NEW  
120" LINE**

**PROPOSED NEW LINE  
IN GRAHAM STREET (102")  
FROM KENILWORTH DRIVE  
TO PROJECT ENTRY**

— **PROPOSED LINE**  
(APPROX. 120")

## —SLATER PUMP STATION TO BE UPGRADED

**INTERCEPT THE  
60" RCP AT THIS  
LOCATION WITH  
PROPOSED NEW  
102" LINE**

**- FLOOD CONTROL  
CHANNEL IMPROVEMENT  
(SHEET PILE OR APPROVED EQUAL)**

 Scale: (approx.) 1"=200'

EDAW, Inc. 6/11/01

Source: Hunsaker & Associates Irvine, Inc.

Exhibit 71

## Alternatives 8 & 9-Storm Drainage Map

### Reduced Density Alternative (0-lot County) - June 2000 FEMA

## **2-5 6.10 ALTERNATIVE 9 - REDUCED DENSITY ALTERNATIVE (0-LOT COUNTY/CCC CONSERVATION) WITH PROJECTED BASE FLOOD ELEVATION (UPDATED FEMA WITH LOMR) - 4.5 FEET**

### **Description of Alternative**

Alternative 9 differs from Alternative 8 in the proposed base flood elevations (4.5 feet versus 10.9 feet). This alternative plan avoids all County eucalyptus trees (including the eucalyptus ESHA located in the County portion of the project site, please refer to Exhibit 63) by avoiding development within the County portion and assuming designation of California Coastal Commission Conservation on the County site. Under this alternative, the number of units in the City parcel have also been reduced by 18 units to accommodate buffers which assist in offsetting impacts of the revised base flood elevation for the site. Considering the above discussed factors, this alternative results in a total project dwelling unit reduction of ~~47~~ **45** from ~~208~~ **206** to 161 dwelling units (refer to Exhibits 64, Conceptual Land Use Plan 161 lots; Exhibit 66, Tentative Tract Map (County); Exhibit 67, Conceptual Landscape Plan and Exhibit 72, Tentative Tract Map (City) in this section). It should be noted that in order to reduce duplication, only those exhibits, which contain different information than the prior Alternative 8 are shown.

The Reduced Density Alternative (0-lot County) with Projected Base Floodplain Elevation (updated FEMA with Applicant's LOMR) results in the following changes to the entire project. First, the alternative plan will have a total of 77 estate lots with a minimum size of 6,000 square feet and average size of 7,362 square feet and 84 parkside lots with a minimum size of 5,000 square feet and average size of 5,651 square feet versus 95 estate lots (average 7,030 sq.ft.) and 111 parkside lots (average 5,770 sq.ft.) as identified with the proposed plan. Second, the overall alternative plan will have a gross density of 3.2 dwelling units per acre (du/ac) versus a gross density of 4.13 du/ac with the proposed plan. Third, the alternative plan provides for 16.1 acres of park / open space use versus ~~8.4~~ **8.2** acres of park / open space under the proposed plan. Fourth, the alternative land use plan provides for avoidance and preservation in place of the remnant pickleweed area and the EPA delineated pocket wetland area. Fifth, the alternative land use plan provides for a 767.3-foot buffer from the closest proposed residential use to the portion of the ESHA located on-site versus a 60-foot buffer identified with the originally proposed plan. Lastly, the alternative land use plan includes a 133-foot separation (including a 50-foot wide paseo park) from the existing residential units along Kenilworth to the closest proposed residential units.

The proposed applications discussed (i.e., General Plan, zoning maps and CUP) will be revised to reflect this alternative layout.

Under this scenario, City staff would also consider the non-annexation alternative. Within this non-annexation alternative, the total number of residential dwelling units proposed within the City of Huntington Beach portion of the project would remain unchanged (i.e., 161 units), because no units are assumed within the County based upon the CCC Conservation designation.

## **Environmental Assessment**

The following is a review of potential environmental effects of the Reduced Density Alternative (0-lot County) with Projected Base Floodplain Elevation (updated FEMA with Applicant's LOMR) described above and as shown in the above referenced exhibits.

It should be noted that the Mitigation Measures contained in the original Draft EIR and referenced in the following sections are included in their entirety within Section 4.0 of this document.

### **Land Use**

This alternative would result in land use impacts similar to those associated with the original project. Similar to the original project, the alternative plan may result in impacts related to the provision of affordable housing. Mitigation Measure 1 to ensure that no inconsistencies with the City's Affordable Housing policy would still apply to this alternative plan. Density of the original project would be reduced from 4.13 du/ac proposed under the original project to 3.2 du/ac under the Reduced Density Alternative (0-lot County) with Existing Base Floodplain Elevation (June 2000 FEMA). This alternative is consistent with the adopted City of Huntington Beach General Plan land use designation of RL (Residential, Low Density) and with the City of Huntington Beach applicable goals and policies of the General Plan.

Additionally, implementation of the proposed project would result in no development within the 4.5-acre County parcel consistent with the CCC Conservation November 2000 decision to redesignate this parcel as conservation. Because a lawsuit is pending on the current Bolsa Chica LCP designations, the County portion of the project site is currently designated as MLR (Medium low residential, 6.5 - 12.5 dwelling units per acre). However, no development would occur under this alternative, therefore, no plan consistency impacts would result.

### **Aesthetics/Light and Glare**

Although the Reduced Density Alternative (0-lot County) with Projected Base Floodplain Elevation (updated FEMA with Applicant's LOMR) would result in the development of 47 45 less units than the original project, the alternative still may be perceived as having a substantial, demonstrable, negative aesthetic effect due to the reduction of viewable open space areas. The increases in pad elevations (ranging from 5.5 feet to 11.5 feet (NAVD 88) - 5.5 feet adjacent to the Kenilworth homes and along the northern portion of the site and gradually increasing to 11.4 feet towards southwestern portion of the site adjacent to the CO5) associated with this alternative are discussed in the paragraphs below. As stated above, the alternative plan would include 7.7 additional acres of open space. Approximately, 2 acres of the 7.7 additional acres comprise a 50-foot wide linear paseo park, which will act as a buffer between the existing Kenilworth residential units and the proposed residential units (refer to Exhibits 73 - 74b). The paseo park also provides pedestrian access to the proposed 8.2-acre public park (4.1 acres of passive public park and 4.1 acres of active public park) at the northwest corner of the site. Overall the reduction of total dwelling units (i.e., 47 45 units less) and addition of 7.7 acres of park space will assist in offsetting the aesthetics impacts associated with increased pad elevations across the site. Mitigation Measures 1 and 2 under Aesthetics would still apply to this alternative. Additionally,

the decrease in elevation, compared to Alternatives 6 and 8 is due to a new detailed flood insurance study of the CO5, commissioned by the applicant. Along the northern portion of the site the proposed pad elevation of 5.5 feet (NAVD 88) (base flood elevation of 4.5 feet (NAVD 88), developed by the detailed study) is considerably lower than the base flood elevation of 10.9 feet (NAVD 88) under the previous alternative, and is not anticipated to create a significant impact.

The following outlines the visual impacts to the existing adjacent homes located off of Kenilworth. The original plan analyzed in the Draft EIR depicted the proposed homes across from Kenilworth at pad elevations of 0.08 feet to 2.1 feet (NAVD 88). These proposed homes were to be located/setback (rear yard setback) 25 to 35 feet from the existing Kenilworth homes. Under the Reduced Density Alternative (0-lot County) with Projected Base Flood Elevation (updated FEMA with Applicant's LOMR), the proposed pad elevations would increase to an elevation of 5.5 feet (NAVD 88) along Kenilworth (please refer to Exhibits 73, 74a and 74b, Key Map and Site Cross Sections on the following pages). Although this increase is 2 to 4 feet above the original plans, the proposed homes would be located 133 to 154 feet from the existing Kenilworth homes. This is 108 to 119 feet increase in separation from the original plan. The 133 foot separation is comprised of a 50-foot wide linear paseo park, which lies immediately adjacent to the existing Kenilworth homes; a 56-foot roadway (i.e., "B" Street), which lies to the south of the paseo park; and a 27-foot front yard setback of the proposed Parkside Estates homes. At the project entry the 133-foot separation expands to 154 feet. This expansion occurs within the paseo park (i.e., 87 feet vs. 50 feet) and the entry roadway which includes a 15-foot landscaped median (i.e., 67 feet vs. 56 feet).

### Visual Simulation

In order to provide a realistic analysis of the potential aesthetic impacts of the proposed alternative on the existing residential development along Kenilworth, a visual simulation study was conducted by Focus 360. The study involved taking a series of photographs of the existing conditions (please refer to Exhibit 55, All Alternatives Visual Simulations - Existing Condition (under Alternative 6)). The first view on Exhibit 55, is taken from the rear wall/fence line of an existing home (5322 Kenilworth Drive). The photo depicts a panoramic view across the project site to the CO5 Channel. The second photo on Exhibit 55 was taken from the corner of Graham Street looking west, depicting the rear wall along the existing residential units. The photo also shows the backs of the existing Kenilworth homes and the existing vegetation, which currently interrupts the view across the project site. Because of this existing vegetation and in order to provide a "worst case" visual analysis, the photograph of the existing project site was taken from the Kenilworth home rear wall/fence on the Shea property.

The existing condition view (top photo on Exhibit 55) was then utilized to build the visual simulation for the original project analyzed in the Draft EIR and the proposed alternative (please refer to Exhibit 62, Alternatives 7 & 9 - Visual Simulations - Reduced Density Alternative - updated FEMA with LOMR (under Alternative 7)). Exhibit 62 shows the proposed alternatives 7 and 9, which consist of projected floodplain elevations of 4.5 feet (NAVD 88) along with a simulation of the original project analyzed in the Draft EIR. The simulation shows that the higher pad elevations of the proposed alternative do not create any adverse impacts on the existing homes' privacy and views. The proposed 133-foot separation including a 50-foot landscaped buffer (i.e., paseo park) in this alternative creates more privacy for the existing homes on

Kenilworth as compared to the original project. The simulations depict a more aesthetically pleasing view of the proposed alternative's homes' front yards versus the original project's homes' rear yards.

Based upon the above analysis and exhibits included herein, this alternative would result in similar aesthetic impacts as the originally proposed project. Although the pad elevations are higher with this alternative plan (i.e., 2 to 4 feet), the separation is greater (i.e., 108 to 119 feet) and serves to offset the increase in pad elevations.

This alternative plan would preserve the majority of eucalyptus trees located on the City portion of the site by locating the trees within a park, similar to the original project. Only those trees on the City parcel that have been designated within the Arborist Report as requiring removal would be removed. The rationale for removing dead or dying trees is provided within the Arborist reports, dated September 29, 1996 and September 1998, respectively. The report prepared for the grove located in the City Parcel is located in Appendix G of the Draft EIR and Appendix B of this document, and the report prepared for the grove located in the County Parcel is located in Appendix B in this document. Mitigation Measure 3 under Aesthetics would still apply to this alternative to reduce impacts related to the removal of any dead or dying trees onsite to a level less than significant. As stated above, this alternative proposes complete avoidance of all the eucalyptus trees located within the County portion of the site, unlike the original project. Additionally, the alternative provides a 767.3-foot buffer from the closest residential unit to the 0.13 acre on-site ESHA. The original project impacts related to the removal of eucalyptus trees and the onsite ESHA are eliminated by this alternative.

The alternative plan may result in impacts to County-proposed trails, similar to the original project. There are existing and proposed 8-foot wide County trails on south and west sides of the project site. The project also proposes 8-foot wide trails within the site. Exhibit 70, Conceptual Recreation and Open Space Plan, under Alternative 8 depicts the proposed trail and bike path plan for the 161 unit alternative plan. Mitigation Measure 4 under Aesthetics would still apply to this alternative to reduce impacts to County-proposed trails to a level less than significant.

This alternative will reduce the amount of light and glare in the vicinity of the County parcel compared with the original project due to the fact that development is avoided within the County portion of the project site due to the CCC conservation designation. However, compared with existing conditions the Reduced Density Alternative (0-lot County) with Projected Base Floodplain Elevation (updated FEMA with LOMR) will incrementally increase the amount of light and glare in the vicinity of the project site and may impact the Bolsa Chica Preserve area south of the site, similar to but less than the original project. Mitigation Measures 1 through 3 under Light and Glare also would apply to this alternative.

Overall, this alternative will result in less than significant aesthetic impacts after mitigation, similar to the original project.

### **Transportation/Circulation**

This alternative would contribute to short-term construction related impacts due to the addition of truck and construction vehicle traffic. The short-term impacts would be the same as the

original project due to insignificant differences in the amount of dirt hauled (i.e., import) between this alternative and the original project (refer to Table BB). The same assumptions as in the original project (i.e., worst case scenario - using one entrance/exit off of Graham Street) have been used in assessing the short-term daily trips for grading operations, therefore, the number of truck trips hauling dirt daily and the duration of the grading operation would remain approximately the same (i.e., 6 months) as in the Draft EIR (please refer to Earth Resources). Mitigation Measure 1 regarding short-term impacts would still apply to this alternative. Short-term transportation/circulation impacts will be less than significant after mitigation.

This alternative also would result in vehicular increases on the surrounding street system, as in the original project. Traffic improvements proposed for the project area still would be implemented with the alternative plan, as they also would be necessary with this alternative. However, due to the fact that this alternative proposes the development of 47 45 fewer units than the original project, this plan would generate lower project traffic volumes than the original project. Long-term impacts associated with transportation/circulation would be less than the original project. As described in the Draft EIR, the original project would result in approximately 2,496 Average Daily Trips (ADT). Based on the proposed 161 dwelling units, this alternative would result in 1,932 ADT. This represents 564 fewer trips per day or a 23 percent reduction in ADT. Additionally, this scenario presents a total of 155 trips during the morning peak hour and 193 trips during the evening peak hour, compared to 200 and 250 morning and evening peak hour trips for the original project. Although there would be a reduction in ADT with this alternative plan, Mitigation Measures 2 through 4 regarding potential impacts to pedestrian, bicycle, and vehicular safety related to the establishment of access and an onsite circulation system and Mitigation Measure 5 regarding potential level of service deficiencies at the intersections of Bolsa Chica Street and Warner Avenue and Graham Street and Warner Avenue under the 2020 condition would still apply.

### **Air Quality**

Impacts from the alternative plan associated with short-term air quality would be the same as in the original project, due to only a small increase in the amount of dirt hauled (i.e., import) and an identical duration of grading operation (i.e., 6 months) between this alternative and the original project (please refer to Earth Resources). Any small increased grading activity emissions would be offset by the construction of 47 45 fewer homes which would result in less construction activity air quality impacts (i.e., emissions from construction equipment, haul vehicles and fugitive dust) than those generated by the original project. The combination of slightly increased fill impact but fewer units built will create peak activity day unmitigated NO<sub>x</sub> emissions in excess of SCAQMD thresholds that are slightly less, but fairly similar to the original project (58 percent "excess" for the original project versus 43 percent for this alternative) (refer to Appendix E, Supplemental Air Quality Data). Mitigation Measures 1 through 6 in the Draft EIR regarding short-term impacts during construction activities would still be applicable to this alternative. Application of these Mitigation Measures would reduce short-term construction activity impacts to a level that is less than significant.

This alternative also would result in fewer long-term mobile source emissions than the original project due to the reduced ADT from 47 45 less units. Estimation of mobile source emissions is based on ADT; therefore, since the plan alternative is estimated to result in a 23 percent reduction in ADT (as described above), it is assumed that the plan alternative would result in

proportionately less mobile source emissions (i.e., 23 percent). Additionally, the proposed 161 dwelling units proposed under this alternative is below the AQMD air quality threshold for single family, which is 166 dwelling units (CEQA Air Quality Handbook, Table 6.2). Therefore, the long-term air quality impacts would be considered less than significant under this alternative. Mitigation Measures 7 and 8 identified in the Draft EIR to reduce impacts related to long-term impacts would also apply to this alternative, thereby further reducing the alternative's incremental contribution to this impact to a level less than significant.

## **Noise**

This alternative would result in the same short-term impacts compared to the original project during construction activities due to immeasurable differences in the amount of dirt hauled (i.e., import) and the duration of grading operation (i.e., 6 months) between this alternative and the original project. Standard City policies and Mitigation Measures 1 and 2 would still apply to this alternative. Short-term noise impacts will be less than significant after mitigation.

Long-term noise impacts due to the increase in traffic would be less than the original project due to less traffic being generated than the original project. Estimation of noise impacts due to increase in traffic is based on ADT; therefore, since the alternative plan is estimated to result in a 23 percent reduction in ADT (as described above), it is assumed that the plan alternative would result in proportionately less traffic-related noise impacts (i.e., 23 percent). Although the plan alternative would result in less traffic-related noise impacts, Mitigation Measure 3 in the Draft EIR identified to ensure new walls are constructed to achieve maximum noise reduction would apply to this alternative.

## **Earth Resources**

This alternative would result in similar impacts associated with liquefaction and soil settlement as the original project. The City would require that any proposed development implement remedial grading activities. There is an insignificant difference in the amount of dirt hauled (i.e., import) and the duration of grading operation (i.e., 6 months) between this alternative and the original project (please refer to Table BB, Cut, Fill and Import Quantities, above). Similar impacts would be anticipated with buildout of the alternative plan, and Mitigation Measures 1 through 6 identified in the Draft EIR to reduce impacts still would apply to this alternative. Grading impacts will be less than significant after mitigation.

## **Drainage/Hydrology**

This alternative would result in increased surface water runoff due to the covering of surface soils with impermeable structures and surfaces less than those of the original project due to the 47 45 fewer homes and provision of 7.7 additional acres of open space/parkland. The development under this alternative also would require the storm drainage improvements as proposed by the original project (please refer to Exhibit 71). Mitigation Measure 1 related to drainage, flooding and cumulative impacts, and Mitigation Measures 2 and 3 related to water quality and cumulative impacts identified in the Draft EIR to reduce impacts also would apply to this alternative.

This alternative's potential impacts related to flooding are discussed below. A majority of this discussion has been summarized from the January 30, 2001 study prepared by Exponent and

contained in Appendix C of this document. Because the basis for flood analysis is the project's designation by FEMA LOMR and revised FIRM, the following discussion has been provided.

Exponent has investigated past studies and prepared a detailed FIS focused on the Parkside Estates property in order to determine an appropriate BFE for a CLOMR. The Exponent transmittal documents for the proposed CLOMR are contained in Appendix C and are dated January 30, 2001.

FEMA requires a detailed Flood Insurance Study because the revised FIRM and LOMR issued by FEMA in June 2000, based on an approximate study, shows the flood hazard at the Shea Homes property as an unnumbered A-Zone without a BFE. Where FEMA has not provided detailed FIS, FEMA regulations state that the floodplain administrator must require a project proponent to prepare a detailed analysis.

The study's purpose was to evaluate the appropriate 100-year (1% annual chance) flood depth for the underlying floodplain in order to achieve adequate flood protection. Both riverine and combined riverine and coastal storm surge events were modeled.

This focused detailed Flood Insurance Study concludes that the 100-year (1% annual chance) water surface elevation (i.e., BFE) over the Shea Homes property is 1.76 ft (NGVD 29<sup>5</sup>) for riverine flooding, and 1.88 ft (NGVD 29) for combined riverine and coastal storm surge flooding. These elevations correspond to a rounded BFE of 2 ft (NGVD 29). This BFE when converted to 1988 datum is 4.44 or a rounded figure of 4.5. This BFE is substantially less than the base flood elevations of 10.2 feet to 10.9 feet (NAVD 88) interpolated by the County from the WEST study used for FEMA's LOMR issued June 2000 FIRM (refer to Exhibit 48). The reasons for this substantial difference are primarily because the focused detailed study prepared by Exponent uses 1) new detailed and accurate contour mapping, 2) a U.S. Army Corps of Engineers (CoE) levee breach analysis, 3) hydrology consistent with FEMA and CoE published discharges, 4) an unsteady flow model which accounts for flood storage and unsteady tidal control, and 5) proposed improvements with the Parkside Estates development. Please refer to Appendix C for a detailed discussion of the factors listed above.

The increase in flood water surface elevation to adjacent properties caused by the proposed development under this alternative is zero (0) ft for riverine flooding, and 0.12 ft for combined riverine and coastal storm surge flooding. The zero to negligible increase in water surface elevation from the project alternative is because drainage improvements (shown in Exhibit 58) to be made as conditions of development more than make up for displacement by fill of storage volume on the project site and closure of the connection to Bolsa Chica lowlands draining the property to the west. The proposed storm drain improvements include additional gravity drainage from the property to the Slater Pump Station and additional pumping capacity at the station. These storm drain improvements are shown on Exhibit 58. Mitigation Measures 1 through 3 in the Draft EIR would apply to this alternative.

~~If the BFEs assumed for this alternative are correct, i~~Impacts related to flooding under this alternative could potentially be greater than under the condition analyzed in the Draft EIR in the absence of the increased pad elevations. However, the proposed design of this alternative, including the higher pad elevations, storm drain improvements, addition of greater pumping

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<sup>5</sup> All elevations in the focused detailed Flood Insurance Study prepared by Exponent for Shea Homes are based on mean sea level, (National Geodetic Vertical Datum of 1929 (NGVD 29)). The Shea Homes development elevations, in separate documents, are based on mean sea level, (North American Vertical Datum of 1988 (NAVD 88)). NGVD 29 elevations may be converted to NAVD 88 elevations by adding 2.44 feet to NGVD 29 elevations.

capacity to the Slater Pump Station, and improvements to the East Garden Grove Wintersburg Flood Control Channel, will mitigate the impacts to a level of less than significant.

### **Biological Resources**

This alternative would result in fewer impacts related to biological resources than the original project. Mitigation Measure 1, which ensures that no construction impacts affect the potential active nesting sites for native birds of prey would still apply. As described in the Draft EIR, the original project would result in the removal of an EPA delineated pocket wetland and a 0.2 acre pickleweed patch located on the County portion of the project site. Implementation of the proposed alternative would not result in removal of the EPA delineated wetland nor the 0.2-acre pickleweed patch; therefore, the portion of Mitigation Measure 2 under Biological Resources that is designed to mitigate for the loss of wetland would not be required. However, the latter portion of Mitigation Measure 2 still applies to the Reduced Density Alternative with Projected Base Floodplain Elevation (updated FEMA with Applicant's LOMR), which requires "the preservation and enhancement of 2 acres of appropriate wildlife habitat per the Department of Fish and Game." This Reduced Density Alternative with Projected Base Floodplain Elevation (updated FEMA with LOMR) provides 5 acres of open space in the County parcel. An on-site preservation and enhancement plan for 2 acres will be implemented under this alternative per Mitigation Measure 2 of the EIR. Overall, this alternative results in less impacts to biological resources.

### **Cultural Resources**

This alternative would result in potential impacts to archaeological resources, similar to those of the original project. Subsequent to the release of the Draft EIR and in response to comments, Mr. Brian Dillon, consulting archeologist conducted an additional survey of the project site. A copy of this report, dated, February 14, 2000, is contained in Appendix D of this document. The Tentative Tract Maps contained in the Draft EIR were revised to ensure no remedial grading impacts would occur to ORA 83 as a result of project implementation. Please refer to Section 3.0 of this document. The result of the study, prepared by Brian Dillon, states that the revision of the TTM's and redesign of the site result in mitigation of potential adverse impacts to the CA-ORA-83/86 archaeological site by avoidance of the site. The previous Tentative Tract Map in the Draft EIR included a potential overlap of roads, lots, etc. onto the easternmost fringe of archaeological site CA-ORA-83/86. The revised 161 unit TTM for this alternative includes relocation of roads, lots, etc. away from the archaeological site in an easterly direction, resulting in complete avoidance of the archaeological site. Mitigation Measures 1 through 3 identified in the Draft EIR Cultural Resources would apply to this alternative.

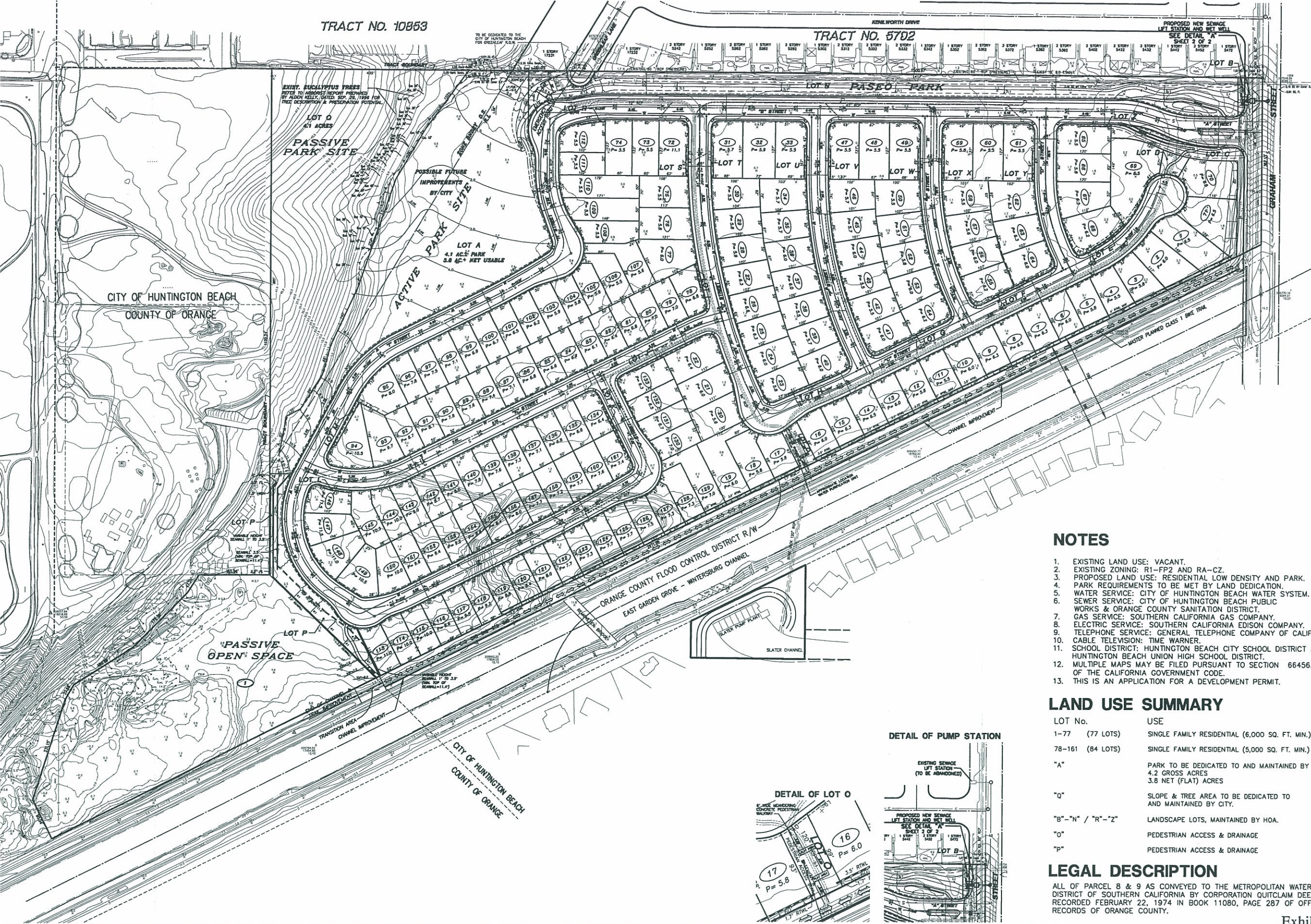
### **Public Services and Utilities**

This alternative would result in impacts to public services and utilities that would be less than the original project. Because this alternative would result in the development of ~~47~~ **45** fewer units, the demands on existing public services and utilities (i.e., schools, sewer and water, fire protection, police protection, library, gas, electricity, hospitals, transit, etc.) would be less. Although the impacts would be less with this alternative, Mitigation Measures 1 through 18 under Public Services and Utilities identified in the Draft EIR would still apply to ensure impacts are reduced to a level less than significant.

### **Status of Alternative**

This alternative is technically feasible. It meets the project applicant's objectives. This alternative reduces impacts of the original project in that it completely avoids the eucalyptus trees, the EPA delineated pocket wetland, and the pickleweed patch located on the County portion of the site, and provides a 767.3-foot buffer from the closest residential use to the 0.13 acre on-site ESHA. Furthermore, it provides 7.7 additional acres of open space. This alternative slightly increases the overall site base flood elevation, compared to the original project. This results in an insignificant difference in the amount of import and the duration of grading operation. ~~As noted above, if the BFEs assumed for this alternative are correct, i~~Impacts related to flooding under this alternative could potentially be greater than under the condition analyzed in the Draft EIR in the absence of the increased pad elevations. However, the proposed design of this alternative, including the higher pad elevations, storm drain improvements, addition of greater pumping capacity to the Slater Pump Station, and improvements to the East Garden Grove Wintersburg Flood Control Channel, will mitigate the impacts to a level of less than significant.

Thus, it reduces many impacts compared to the original project and does not create significant impacts related to the increase in base flood elevation. Therefore, it is environmentally superior to the original project and remains under consideration if approval of Shea Home's CLOMR application to FEMA is granted.



NOTES

- 1. EXISTING LAND USE: VACANT.
- 2. EXISTING ZONING: R1-FP2 AND RA-CZ.
- 3. PROPOSED LAND USE: RESIDENTIAL LOW DENSITY AND PARK.
- 4. PARK REQUIREMENTS TO BE MET BY LAND DEDICATION.
- 5. WATER SERVICE: CITY OF HUNTINGTON BEACH WATER SYSTEM.
- 6. SEWER SERVICE: CITY OF HUNTINGTON BEACH PUBLIC WORKS & ORANGE COUNTY SANITATION DISTRICT.
- 7. GAS SERVICE: SOUTHERN CALIFORNIA GAS COMPANY.
- 8. ELECTRIC SERVICE: SOUTHERN CALIFORNIA EDISON COMPANY.
- 9. TELEPHONE SERVICE: GENERAL TELEPHONE COMPANY OF CALIFORNIA.
- 10. CABLE TELEVISION: TIME WARNER.
- 11. SCHOOL DISTRICT: HUNTINGTON BEACH CITY SCHOOL DISTRICT AND HUNTINGTON BEACH UNION HIGH SCHOOL DISTRICT.
- 12. MULTIPLE MAPS MAY BE FILED PURSUANT TO SECTION 66456.1 OF THE CALIFORNIA GOVERNMENT CODE.
- 13. THIS IS AN APPLICATION FOR A DEVELOPMENT PERMIT.

LAND USE SUMMARY

LOT No.	USE
1-77 (77 LOTS)	SINGLE FAMILY RESIDENTIAL (6,000 SQ. FT. MIN.)
78-161 (84 LOTS)	SINGLE FAMILY RESIDENTIAL (5,000 SQ. FT. MIN.)
"A"	PARK TO BE DEDICATED TO AND MAINTAINED BY CITY. 4.2 GROSS ACRES 3.8 NET (FLAT) ACRES
"Q"	SLOPE & TREE AREA TO BE DEDICATED TO AND MAINTAINED BY CITY.
"B"- "N" / "R"- "Z"	LANDSCAPE LOTS, MAINTAINED BY HOA.
"O"	PEDESTRIAN ACCESS & DRAINAGE
"P"	PEDESTRIAN ACCESS & DRAINAGE

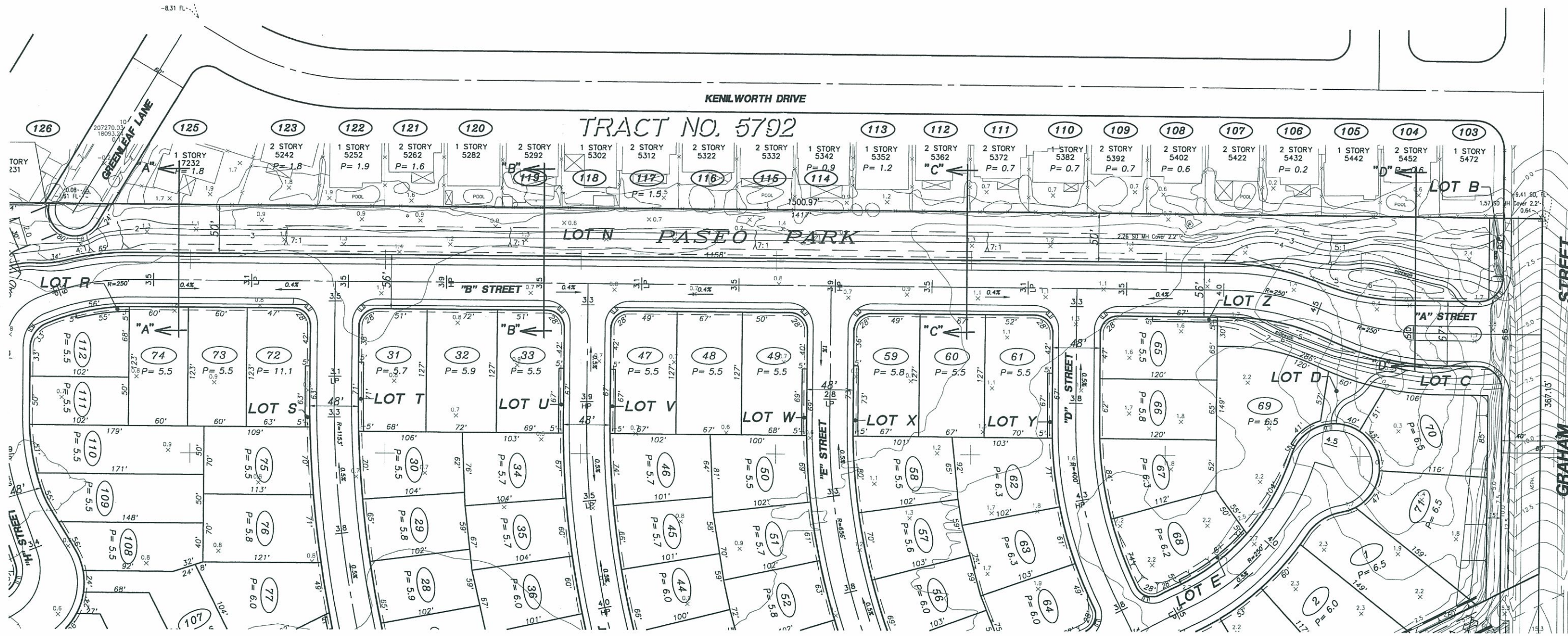
LEGAL DESCRIPTION

ALL OF PARCEL 8 & 9 AS CONVEYED TO THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA BY CORPORATION QUITCLAIM DEED RECORDED FEBRUARY 22, 1974 IN BOOK 11080, PAGE 287 OF OFFICIAL RECORDS OF ORANGE COUNTY.

Scale: (approx.) 1"=215'

EDAW, Inc. 6/11/01

Source: Hunsaker & Associates Irvine, Inc.



1  
Scale: (approx.) 1"=100'

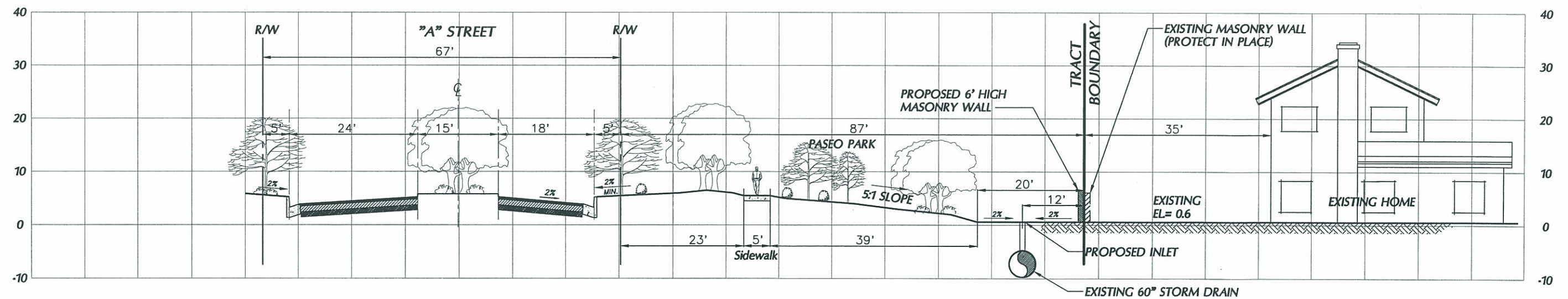
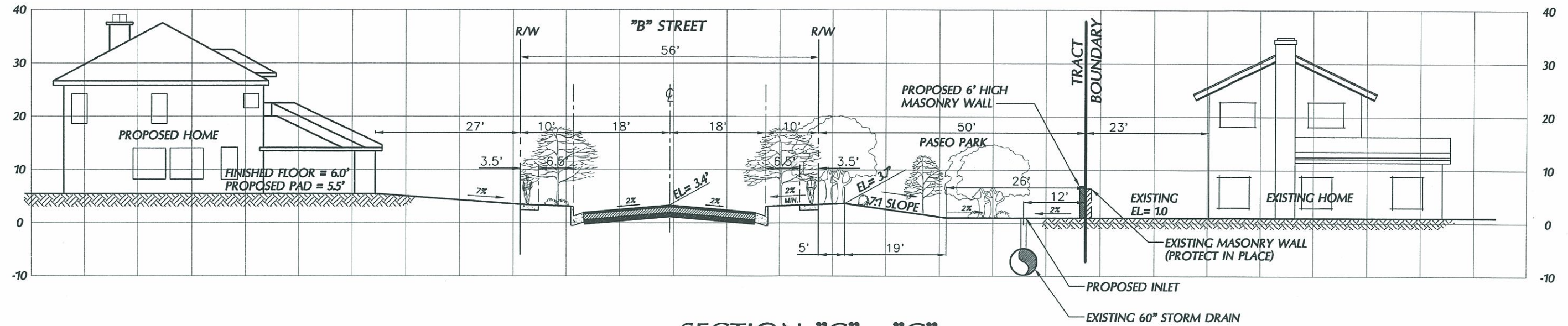
EDAW, Inc. 6/11/01

Source: Hunsaker & Associates Irvine, Inc.

Exhibit 73



### Reduced Density Alternative (0-lot County) - Updated FEMA with LOMR



Scale: (approx.) 1"=20'

**EDAW, Inc.** 6/11/01

Source: Hunsaker & Associates Irvine, Inc.

**See Key Map  
For Cross-Section Locations**

Exhibit 74b

**Alternative 9-Site Cross Sections**  
Reduced Density Alternative (0-lot County) - Updated FEMA with LOMR